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THE AMERICAN FARMER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." Virg.

PUBLISHED BY SAML. SANDS & SON, BALTIMORE, MD.

VOL. VII.—No. 8.]

AUGUST, 1878.

[NEW SERIES.

Sheep Husbandry in the South.

We have received from A. Williams & Co., Boston, a copy of a pamphlet with the above title, which we conceive to be of so much importance as to induce us to give more space to its consideration than we can usually afford in our limited pages to most of the books which are received for our notice. Independent of the intrinsic importance of the subject discussed, now looming up largely throughout the land, the causes which have produced the publication under review are of no less magnitude, indicating as they do, in a more official shape, the new departure which has been resolved upon by the statesmen of the South, from the policy heretofore in vogue in that section of the Union, as to the encouragement of domestic manufactures in their respective States, the error of which policy has now become evident, probably from the terrible experience gained during the late civil war, in which the South was placed pretty much in the condition of the country at the time of the breaking out of the war of 1812 with Great Britain. Prior to the revolution, the policy of the mother country was to prevent the introduction into her colonies of any kind of manufactures, but to confine the inhabitants to the supply of agricultural productions; whilst the dense populations of her limited territory at home were employed in the manufacture of all the supplies necessary for the comfort and convenience of the colonists. To such an extent was this policy extended, that we well remember the remark current in the early part of the present century, that England "would not permit a hob-nail to be made" in any of her dependent colonies; hence, when war was declared under the administration of President Madison, in

1812, the great and violent opposition to that step made by the opposite party was on the ground that the country was not prepared to embark in a contest with so powerful a nation, from the want of the necessaries required to meet the exigencies of the war. Young as we were at the time, our position as an apprentice in two of the leading journals of this city, with a peculiar interest in the affairs of the period, gave us ample opportunities to note what we now remember well, the trials and hardships which our people underwent for the lack of the means of supplying even the necessities of life.

The revolution had left our people poor, and little progress had been made in the establishment of manufactories of any description up to the time of the war of 1812-'15, in consequence of which every article required for private use or for the conduct of the war was purchased at enormous prices,—all our ports being blockaded by British cruisers, which prevented our receiving supplies from foreign powers, whilst our resources were mainly confined to the receipts through the instrumentality of our clipper-built vessels for which Baltimore was famous, and which succeeded in running the blockade at great hazard; the many losses by capture necessarily being made up by the enormous prices obtained on the goods so imported. The South in its later experience can appreciate the circumstances of the times to which we have alluded, and it may be the consequence of such a condition of affairs that has contributed largely to the wiser policy which the leading statesmen of that quarter are now fostering, of making provision for any future emergencies which may arise, in which they may not be left helpless for the supply of almost all the necessities of life, saving, of course, the productions of the soil.

For several years past, the importance has been manifested of a change of the usual practice which has so long prevailed, of mainly confining their cultivation of the earth to the production of the one great staple, cotton, in the raising of which they have no powerful competitor. This change of programme has been urged most earnestly, and with great ability, upon the attention of the agriculturists of the South, and although human nature is slow to depart from long-established habits and systems, yet the necessities of the case, and the evidence which is being presented year by year of the great benefits to be derived from a change in their former system, is now bearing fruit, which will soon place their section upon a more permanent basis of prosperity than it has ever yet enjoyed. Instead of raising cotton alone, for sale in foreign markets, and purchasing with the proceeds thereof the meat, corn and wheat necessary for their home supplies, and for the animals required for the working of their plantations, which they obtained from the West, as they did their cotton and woolen clothing, as well as their implements and machinery, and even their culinary utensils from the workshops of the East and North, they have been induced to enter upon a new career of producing all those things which make up the necessities as well as the comforts of life,—so that by persisting in such a course for a few years they will be enabled to obtain from their own farms, or from their home markets, everything making them independent of the markets abroad.

One branch of manufactures has already made considerable progress in the South, that of the manufacture of cotton fabrics, and the investments in which, we believe, have been found more profitable than the capital employed in any other business. Although the machinery and skill engaged therein may be of a ruder character than those enjoyed elsewhere, yet the great advantage of placing the mills alongside of the fields where the raw material is grown, together with the saving of labor and expense of freights, insurance, commissions, and the numerous other charges to which the removal of their great product has been subject heretofore, must eventually give to the Southern manufacturer immense advantages over those of the more distant States, for the production at least of their own home supplies, and still give them the means of furnishing the raw staple to other parts of the country, or to the outside world. And when we consider the plain common-sense principle involved in this view of the case, we cannot but be astonished that so erroneous and suicidal policy as

that which has heretofore prevailed, should so long have held sway at the South.

But now, as suggested, in addition to these changes, a new departure is being taken, and its importance is largely enhanced by the character of the men who have come forward with the sanction of their names and their position, to stamp the movement with authority and the auspices of success. And this brings us to the subject which induced us to take pen in hand, viz :

Sheep Husbandry in the South.

which we will further introduce by detailing the circumstances which have induced the movement. Our great interest, which the pages of the *American Farmer* will fully show, for years past has been manifested in the subject of the more general introduction of sheep husbandry into our system of agriculture. We have shown time and again that every State in the Union is capable of raising sheep, and if not all of equal value, yet for all the purposes of manufacturing or for the shambles, we are capable of producing all that we may require either to feed or clothe our own people, and even to supply other nations, where markets are now being opened for the reception of products that we may have to spare, instead of our sending abroad every year many millions of dollars for the purchase of wool for the needs of our mills. We consequently cannot but congratulate ourselves and our readers that we have now in prospect the realization of all our fond hopes of finding that our humble labors, with those of our fellow-laborers in so good a cause, are about being fully realized, and, although verging upon our fourscore years, we may yet be spared to see the day when this scandal to our nation shall be done away with, of sending our hard-earned money to foreign countries to pay for that which we can furnish at our own doors.

In the *Bulletin*, published by Jno. L. Hayes, of Boston, Secretary of the National Association of Wool Manufacturers, appeared two articles from the pen of the editor, entitled "The part of the Wool Industry in our National Economy," and "Wool Production and Sheep Husbandry." These papers attracted the attention of the Hon. Alex. H. Stephens, of the United States House of Representatives from Georgia, who addressed a letter to Mr. Hayes, in which he remarked that the interest called forth by the perusal of these papers has been deepened by the reading of the Report upon Wool and Wool Factories, made by the editor as one of the group of judges in the late International Exposition, which he was

officially requested to prepare, and added, that "while very much has been written upon this question, relative to the advantages of the North, the West and the Pacific Slope, we feel that the special inducements of the South have not been recently presented by any influential authority like that you represent;" and the editor was requested to prepare a paper upon "Sheep Husbandry and Wool Production in the South," for publication in his journal, and also for general distribution. In this request Mr. Stephens was joined by the following gentlemen, all of them at present members of the United States Senate from the Southern States, viz: the Hons. J. B. Gordon, B. H. Hill, Jno. T. Morgan, W. W. Ransom, Jno. W. Johnston, Richard Coke, L. Q. C. Lamar, S. B. Maxey and T. F. Bayard, and also by R. L. Gibson, M. C. from Louisiana, and G. Schleicher, M. C. from Texas, and Wade Hampton, Governor of South Carolina.

This request was urged by these gentlemen as calculated "to give a great impulse to all interests at the South, while it will also be of much aid and value to the reader and capitalist from any quarter."

Mr. Hayes accepted the proposition, which he says had only hastened the execution of a work which he had for a long time contemplated, and hence the production of the present pamphlet, which we have no doubt will have an extended circulation, as it certainly should have, not only in the South, but from all other sections of the country, all of which are deeply interested in the same subject. The pamphlet contains some 108 pages. We cannot of course give space but to some of the most prominent portions of it, and will content ourselves at this time with the following extracts. After alluding to the numerous gentlemen who from time to time had taken an interest in sheep husbandry, and to its vicissitudes, and the prejudices encountered which brought it into general disrepute, and especially evinced by the contemptuous remark attributed to John Randolph, the resuscitation to favor was again manifested by the writings of the Hon. Henry S. Randall and Jno. S. Skinner, Mr. Hayes proceeds as follows:

That a new field for sheep husbandry is about to be opened at the South, is shown less by what has been as yet accomplished than by a complete change in popular opinion in that section as to the desirability of extending this industry within its borders. No stronger evidence of that change could be presented than the request of so many distinguished statesmen of the South that the claims of Southern sheep husbandry should receive the special consideration of the National Association of Wool Manufacturers.

Personal interviews with many of these gentlemen have assured us that it is their earnest conviction, that no industry at present offers for their section such advantages in return for capital invested, and general improvement of the country in question, as sheep husbandry. As other indications of the change in popular opinion, we may state that the Commissioner of Agriculture of the State of Georgia, holding an office recently created, presented, as his first official document, a report on the sheep husbandry of the State; and that the State Agricultural Association of Georgia has recently addressed a memorial to Congress, *protesting against any reduction of the existing duties protective of the wool production of the country,—the first instance, it is said, of similar action in the history of the State.* The question whether the prevailing popular opinion at the South in relation to the advantages of wool production of and sheep husbandry in that section is well founded, is the direct object of our inquiry.

This question is one of comparison. If sheep husbandry may be pursued more cheaply, and as advantageously in other respects, at the South, as in the present principal seats of the industry, it is merely a question of time, or of the diffusion of knowledge, when the fields of the South will compete with the flock pastures of the North and West; or, rather, when capital and animals will be transferred from their present seats to others at the South, where wool production is cheaper and more advantageous. The comparison must be first made in respect to only one branch of sheep husbandry,—that of the pastoral or *merino* sheep husbandry; that designed for wool production chiefly,—mutton-sheep husbandry being subject to different conditions, which must be considered separately.

Climate.—The most important relation of the climate of the North to sheep-growing is exhibited by the following table drawn from the reports of the Department of Agriculture, exhibiting the number of months of full and partial feeding in the States named, made necessary by the severity of the climate:

STATES.	Number of months of full feeding.	Number of months of partial feeding.
Maine	6	1½
New Hampshire..	6	1½
Vermont.....	6	1½
New York.....	5½	2
Pennsylvania....	5	2
Ohio.....	4½	2

A much greater range in the requirements for winter feeding is found at the South. The months for full feeding in Virginia are set down at four, and for partial feeding at two. The time diminishes in both respects as we go South, until in southern Georgia full feeding is required only during occasional storms, and partial feeding from two to three months.

The next point of inquiry is the relation of climate to the health and wool-producing capacity of the sheep. The effect of the climate of the North in these respects is admitted to be favorable.

Health of Sheep at the South.—Dr. Randall has given this branch of the subject minute attention. After enumerating the many thousand sheep existing in 1839 in districts of the extreme South, on the borders of the Okefenokee Swamp and the borders of the Gulf, and even the delta of the Mississippi, he says:

"No portion of the United States is lower, hotter, or more unhealthy, than much of the preceding; and none, according to commonly-received notions, would be more unsuited to the healthy production of sheep. Yet that they are healthy in these situations is a matter of perfect notoriety to all conversant with the fact. So far as health is concerned, then, we are assuredly authorized to assume the position, that no portion of the United States is too warm for sheep."

Effect of Climate on the Wool-producing Qualities of the Animal.—Upon this point, Dr. Randall thus sums up his conclusions:

"My convictions are decided, and the facts reported appear to fully sustain them, that warmth of temperature, at least to a point equaling the highest mean temperature in the United States, is not injurious, but absolutely conducive, to the production of wool. The causes of this are involved in no mystery. Warm climates afford green and succulent herbage during a greater portion of the year than cold ones.—Sheep plentifully supplied with green herbage keep a higher condition than when confined to that which is dry. High condition promotes those secretions which form wool. Every one at all conversant with sheep well knows that, if kept fleshly all the year round, they produce far more wool than if kept poor. A half a pound's difference per head is readily made in this way. Within the maximum and minimum of the product of sheep or a flock, the ratio of production always coincides with that condition."

With one more extract we must close for the present:

In connection with the question of the effect of climate on the *fineness* of wool fibre, we may appropriately quote a breeder of great reputation of Tennessee, but whose flocks were in Mississippi. His statement is old; but the more valuable, since the culture of fine Saxon sheep has now almost wholly ceased in this country. Mr. Mark R. Cockerill, in letter published in the "American Farmer."

I have about 1,000 head of fine sheep. . . . My Saxon sheep were imported in 1824 or 1826,—I cannot say which,—and I find as yet no falling off in quantity or quality of their fleeces: on the contrary, I believe, a little improvement in both points, and a little more yolk when well provided for; which, you know, does not much abound in the Saxon breed. In addition the fleeces are a little more compact than formerly, hence more weight; and, from our mild climate, the staple has become longer. I assert that the cotton region I am now in (Madison county, Mississippi,) in about 32° north, is better than any country north of it, to grow wool, as the sheep can be kept all the time grazing, by sowing small grain; for, if grazed off, it quickly grows again in a few days. And the wool of the fine Saxon sheep in this climate is softer and more cotton-like than any I have ever seen, although

I have samples from all parts of the world. I have traveled from this very place to Boston, sampling all the sheep of note on the way; and I have found nothing on my journey, or at Boston, as good as the wool I have grown; and so said all the wool-staplers whom I met with, and they were not a few. I presume, in reality, that the blood of my sheep was no better than many I saw; but the superiority of my wool I ascribe to our climate, and the provision for the sheep of succulent food the year round."

Having examined the volume of awards of the Exhibition at London of 1851, commonly called the World's Fair, we find that the reports of the juries recognize the German wools as the finest and longest. Two prize medals of the same grade given to the German exhibitors were awarded to exhibitors from the United States. The awards are arranged in the order of merit. The first is given to Mr. Cockerill. It says: "The wool transmitted by the exhibitor from Nashville is well got up; and exhibits, like the preceding specimens (the German,) a quality of fibre indicative of care and skill in the development and improvement of the fleece, which calls for the award of the prize medal." The report further says: "One of the able experts, whose valuable aid the jury have already acknowledged, reports, 'Those shown by America (United States) are most approximating to the character of German wools.'"

Mr. Howard, of Kingston, Georgia, writing to the Department of Agriculture, in 1874, says:

"It is objected that wool degenerates in warm climates, and becomes coarse and valueless.—This is an error. The writer, whose flock is of the Cockerill merinos, which took the premium at the World's Fair in London, many years ago, the sheep being reared in Mississippi, after this lapse of time is now ready to compete with any wool in the United States in fineness of staple."

The quality of extreme fineness in wool is much less regarded now than formerly, on account of the changes in fashion of fabrics. The great bulk of wools at present consumed is of medium grades. Length of staple, however, has become a very desirable attribute, on account of the increased demand throughout the world for wools for combing purposes, which enter into worsted coatings and a great variety of dress goods. This quality of length of fibre, it is seen, is greatly favored by the propitious climate of the South. As our manufacturers advance to the production of the higher qualities of dress goods, such as the French merinos and the very finest grades of worsted coatings, which are now coming into demand, fineness no less than length of staple would be demanded for merino-combing wools; and for both these qualities, it is shown that the climate of the South is favorable.

[We will continue our extracts hereafter.—*Ed. A. F.*]

JERSEY MILK.—The *American Cultivator* says: "The milk of Jersey cows, on account of the peculiarity of the globules, is unfit for the retailer of milk. The cream rising to the surface during the interval between milking and delivery does not readily mix again with the milk."

The Old Maryland State Agricultural Society.

As some writer has attempted, in a cotemporary journal, to give a history of this association, of which the late HON. CHAS. B. CALVERT was the first president, we have deemed it our duty, in justice to the living and the dead, to present in as brief a form as possible a true account of its origination, and the part taken by the founders in establishing this organization, which continued successfully in operation until the breaking out of the late war. The record from which we shall mainly quote will be found in the *American Farmer* for 1848, then as now published by the senior editor, upon whom was detailed the bulk of the labors of the society, except during and about the time of the holding of the State shows.

In July of the year 1848 a meeting of the mechanics of Baltimore, and others engaged in the arts, was held at Washington Hall, adjoining Baltimore-street bridge, for the purpose of forming anew the Maryland Institute for the promotion of the mechanic arts, which had been suspended for some years after the burning of the Athenaeum building at the corner of Lexington and St. Paul's streets, in which its meetings had been held, and in which all the models and other property were destroyed. The Hon. Jno. H. B. Latrobe delivered an address upon the occasion of this meeting, and the institute was organized and its officers elected, with the venerable Jno. Rodgers, one of the oldest master machinists, as its first president. Before any action was taken, however, in the business in hand, an unfortunate accident deprived the association of its secretary, who was suddenly killed at the entrance to the works of Mr. Ross Winans, with whom he was a clerk, by being crushed by the wheels of a wagon. This sad event being duly announced to the institution, the writer was requested to accept the nomination and election to the vacant position, and entered at once on the discharge of its duties.

At the meeting of the board of managers to make the necessary provision for the holding of its first fair in the fall, we proposed to add to the mechanical part thereof a horticultural and agricultural department, after the plan of the American Institute in New York, which motion was adopted, and we were appointed as chairman of the committee to carry out the plan. The duties which would have thus devolved upon us, in connexion with our labors as secretary, and our own private affairs, we were well aware would be too arduous to be properly accomplished, and we availed ourselves of the opportunity which just then presented itself, to escape from our dilemma.

At about the time designated, Dr. Brewer, of Montgomery county, Md., and others, had been suggesting, through the columns of the *American Farmer*, the calling of a *Convention* of the farmers and planters of Maryland, for the purpose of considering the depressed condition of the agriculture of the State, and to endeavor to devise

some means to improve the same. In the July No., in announcing the Institute's purpose of holding an *Agricultural Exhibition and Cattle Show*, in conjunction with the mechanical fair, a call was made "upon the agriculturists of the Union to lend a helping hand in furthering the objects and designs of the Institute. Those disposed to aid in the same, either by the exhibition of stock, implements, machinery, &c., or by donations in money, provender, &c., are respectfully requested to address the secretary, Sam'l Sands, publisher of the *American Farmer*, 'at as early a day as possible'—and it was promised in connexion with this announcement, that the owners of several of the most extensive herds of cattle have promised to be in attendance with the same. Mess. Capron and Calvert, with their Durhams and Devons, will be on the ground, and we think we are authorized in saying that Mr. Geo. Patterson's splendid herd of Devons will also be here, a sight of which is well worth a visit to our city from the most distant parts of the country. Mr. McHenry's, Mr. Ridgely's, and Gen. Howard's Ayrshires also; Mr. Carey's and other grade herds will be on the ground; Mr. H. Carroll's Oxford sheep, and no doubt Mr. Reynold's splendid flock, will grace the show. Mr. Gorsuch's Berkshire and Mr. Jessop's Chester hogs, and an innumerable host of others will be here from all parts of this and the neighboring States." At the conclusion of this notification and appeal, it was added;

"We would take occasion to add, that the opportunity would be a good one to hold the contemplated *Agricultural Convention*, urged by Dr. Brewer and others, through the columns of our journal."

We had put ourselves in communication with the gentlemen named above, and in our next (Aug.) No. we had the pleasure to announce that the *Institute* had concluded to hold its first exhibition on the 31st October, and a cattle show and fair in connexion therewith would take place on the 7th November, and continue two days, (the *Institute's* fair to continue three weeks.) A letter was received from Mr. C. B. Calvert, and published in the same number, in which he made a strenuous appeal to those engaged in agriculture in any manner, to respond to the invitation of the Mechanics' Institute, and suggested that the several agricultural societies and clubs should forthwith appoint delegates to attend a convention "to meet in the city of Baltimore on the 5th day of September, to arrange matters connected with their portion of the exhibition." This appeal was sent to the editor of the *American Farmer* for publication, with the following addition:

"It appears to me that you cannot benefit the cause in any manner more than by urging upon all parts of the State the importance of making an effort at this time to place agriculture on the high position which she should occupy in the minds of all."

As soon as we received Mr. Calvert's letter we called on Jno. Glenn, Esq., (afterwards appointed Judge of United States Circuit Court on the death of the venerable Judge Gabriel Duvall,) and informed him that Mr. Calvert had suggested a day for the meeting of a convention in this city, and we requested him as president of the

Maryland Agricultural Club to give his sanction to the call; Mr. Glenn promptly complied with our request, and issued a notice to that effect, announcing that the convention would be held in the hall of the Maryland Institute, then over the old post-office, corner of North and Fayette streets, on the day designated, at 10 o'clock A. M., "for the purpose of uniting with the delegates from the several clubs and associations of the State in making the necessary arrangements for holding a cattle show and fair on the 7th and 10th November next,—agreeably to the suggestions of the Board of Managers of the Maryland Institute." Mr. Glenn added: "As the subject is one of great importance to the agriculturists of the State, it is hoped a very general attendance will be given."

We would here incidentally remark, that the "Maryland Agricultural Club" was an institution existing more in name than in real activity. Some months before the period alluded to, an enthusiastic young gentleman, Daniel Bowly, Esq., a nephew of the late Mrs. Isaac McKim, who was just preparing to enter upon the practice of the law, conceived the idea of starting an agricultural club. He consulted with us upon the subject, and also with Mr. Glenn; that gentleman was proverbial for his whole-souled liberality and the readiness with which he gave his countenance to every project presented to his consideration, having a plausible prospect of good to the interests of the city and State. He promptly promised his aid to the formation of the club, and tendered the use of his law-office, under his dwelling in North Charles street, to hold its meetings. A meeting was called in the editorial columns of the *American Farmer*, and at the appointed time a number of gentlemen attended and formed an association with the above title, and electing Mr. Glenn as president, Mr. Bowly as corresponding secretary, and the editor of the *Farmer* recording secretary. The club met monthly for a short time, its meetings being regularly held, with usually but a slim attendance, except occasionally when strangers from a distance happening in the city put in an appearance. We believe after the first meeting was held, the president was never on hand, although it was held in his own office,—the vast amount of the business of his profession, and other matters of a public nature, requiring much of his time and attention. The club never met after the formation of the State Society.

We come now to the meeting of the convention, which was held on the 5th of September, and we think we can say, that there was never a gathering of farmers in this State in which was represented a greater amount of solid worth and talent and influence, than in that which was held on this occasion. The convention was called to order by Chas. B. Calvert, Esq., of Prince George's county, on whose motion John Glenn, Esq., of Baltimore, President of the Maryland Farmers' Club, was called to the chair, and Sam'l Sands, editor of the *American Farmer*, appointed secretary. Jno. S. Skinner, Esq., was present, and on motion was requested to take a seat in the convention, and partake in its proceedings. As it is not necessary to our object in referring to this body, and the subsequent movements growing out of its proceedings, to give the details of the

various matters presented from time to time, we will content ourselves with the record of its proceedings preparatory to the formation of the State Society. And here it may be as well to remark, that up to this point no hint or intimation was ever made as to the purpose of forming such an association. But after the consideration and settlement of other matters, the calling of the roll of members appointed as delegates, &c., Geo. W. Dobbin, Esq., (now Judge of the Superior Court of this city,) "moved that a State Agricultural Society be now formed, and that each delegate present sign his name to a subscription paper to be presented for the purpose, which, being seconded by Mr. A. B. Davis, of Montgomery, was concurred in, and the names of the delegates entered accordingly."

A committee of three (Messrs. Dobbin, R. McHenry and Calvert) was appointed to draft a constitution for the society, and at the evening session of the same day, Mr. Dobbin, from the committee appointed for the purpose, made a report, accompanied by the draft of the constitution and by-laws, which was read, amended and adopted.

On motion of Mr. N. B. Worthington, of Anne Arundel, a committee of five was appointed to present the names of gentlemen to be voted for as officers of the society for the ensuing year; and Messrs. Worthington, W. D. Bowie of Prince George's, Col. N. Goldsborough of Talbot, Judge Crane of Charles, and J. C. Henry of Dorchester, were appointed the committee, who retired to an ante-room, and after consultation selected the following gentlemen for the respective positions as provided for in the constitution:

President, Chas. B. Calvert, of P. George's Co.; Vice-Presidents—Baltimore City, John Glenn; St. Mary's county, H. G. S. Key; Charles county, J. G. Chapman; Prince George's, Horace Capron; Calvert, George Weems; Anne Arundel, Wm. C. Lyles; Howard District, Dr. Allan Thomas; Montgomery, A. Bowie Davis; Frederick, David W. Nail; Washington, William Dodge; Alleghany, Dr. Samuel P. Smith; Carroll, Geo. Patterson; Baltimore, Wilson M. Carey; Hartford, Ramsey McHenry; Cecil, Rev. Jas. McIntyre; Kent, Wm. S. Constable; Queen Anne's, Jas. T. Earle; Talbot, Sam'l Hambleton; Caroline, Jos. Pearson; Dorchester, Dr. Jos. E. Muse; Somerset, Dr. Wm. Williams; Worcester, John U. Dennis; District of Columbia, Joseph H. Bradley; Cor. Secretary, Geo. W. Dobbin; Rec. Secretary, Samuel Sands; Treasurer, George M. Gill.

A circumstance connected with the selection of officers occurred which we deem worthy of notice. When the committee retired for consultation, after selecting Mr. Glenn for president, and Mr. Calvert, of Prince George's, as vice-president for that county, and three or four other officers, the committee found themselves in a dilemma as to the best selection of vice-presidents for the other counties, and sent for the secretary, who was supposed to have a better knowledge of the most suitable men, from his acquaintance through his journal, the *American Farmer*, with the most prominent men of the agricultural classes of the State. The secretary responded to the call, and suggested the names

of such gentlemen as he could bring to mind on such short notice, as the most suitable for the several positions. The list being completed, the committee was returning to the main hall to make their report to the meeting; but before entering the room, it occurred to us to ask who had been selected for president, not having observed the first names at the head of the list which had been selected before our assistance was required. In fact, although we had never breathed the subject to a living being, indeed not dreaming of the formation of a society at all, or the appointment of a president up to the time when these were decided on, the man most likely, within the short time allowed to get the society under way, and make arrangements for the holding of the cattle show, was Mr. Calvert, and we could not conceive of any one else being thought of for the position of president. We cried a halt to the committee, and, addressing ourself to the venerable Col. Nich. Goldsborough, who was expected to make the report to the meeting, we begged that they would return to the ante-room for a few moments, that we might present such reasons to their consideration as would show that the whole of our efforts would prove fruitless, if the gentleman who had been then selected was placed at the head of the new association. The committee listened to our appeal, and substituted the name of Mr. Calvert as president, and, though singularly enough in the original draft of the constitution no provision had been made for a vice-president for Baltimore city, the name of Mr. Glenn was proposed for it, as first vice-president, and Col. Capron was substituted as vice-president for Prince George's, in place of Mr. Calvert.

The reasons assigned by us for the substitution of the name of Mr. Calvert for that of Mr. Glenn, in the list prepared by the committee for the sanction of the society, was that the latter gentleman, although a warm friend of the agricultural interest and distinguished, as we have said above, for his zeal in every good work calculated to advance the well-being of his fellow-citizens in every pursuit, was, from that very reason, engaged in such a variety of public and private enterprises, in addition to his professional practice, that it was not to be expected he could command the time, whatever be his disposition, which would have been required to set in operation and conduct with success the affairs of the newly-organized society. Mr. Calvert, on the other hand, was not only recognized as foremost among the most enlightened and devoted farmers of our State as well as a man actuated by disinterested and patriotic motives, but likewise as one conspicuous for his energetic and practical character and his eminent influence with his fellow-agriculturists. The result, as will be seen, justified the decision of the committee.

The report of the committee having been made, and the resolution ratified by the society, Mr. Calvert assumed the chair as president and returned thanks for the honor conferred on him. Resolutions were offered and adopted giving the Executive Committee full power to make all necessary preparations for the show, and to coöperate in every way possible with the Maryland Institute for the promotion of the interests

of each association and the success of their respective exhibitions, which, being held under the guidance of the officers of each, released the Secretary of the Institute (who was now also Secretary of the Agricultural Society) from the arduous duties which would otherwise have devolved upon him as chairman of the committee of the agricultural department.

We might here close our report, but we wish to make a few remarks upon the result of this first cattle show. Mr. Calvert lost no time in getting things in order for the exhibition. Without a dollar in hand, he called to his aid a well-known carpenter of this city, Mr. Bull, and, having obtained a site, Fairmont, on the hill just outside the limits of the city, near the Washington University, he had it enclosed and all the necessary buildings, fences and stalls erected, and before the day of the opening of the show everything was in readiness for the reception of the stock, machinery, &c., and the most successful exhibition, and the most enthusiastic ever held, was the result. Mr. Glenn, just on the eve of the opening of the fair, visited the grounds, and, witnessing the immense labor which had been so well performed in so short a time, was utterly astonished, and left word with Mr. Bull for Mr. Calvert, and in that spirit of liberality for which he was greatly distinguished, that whatever means were required, if any, would be forthwith raised by him to defray the expenses of the exhibition. There was, however, no deficiency, and we believe it was the only show ever held by the society when sufficient funds were raised from its own resources to pay all the expenses. In this case there was a surplus; and in consideration of the services of the secretary, a resolution was adopted for the appointment of a committee to prepare a suitable testimonial to be presented to him for the aid which he had rendered to the cause of agriculture. Mr. J. C. Walsh, of Harford county, offered the resolution as follows, which was seconded by Dr. Wharton, of Washington Co., and unanimously adopted by the society:

"Resolved, That as an evidence of the regard in which the Maryland State Agricultural Society hold the services rendered the cause of agriculture by Mr. Samuel Sands, by the ability with which he has conducted that useful publication, the *American Farmer*, and his untiring efforts to promote the advancement of the cause in which we are engaged, a committee of three be appointed by the chair to have prepared a suitable testimonial to be presented to him in the name of the society."

Mr. Key, of St. Mary's Co., also offered a resolution, which was adopted, that "the members of this society pledge themselves to exert their best efforts to increase the subscription to the *American Farmer*, and to extend its circulation to all parts of the United States."

Mr. Sands returned thanks to the society for the distinguished mark of its approbation which was evinced by the passage of these resolutions, and in the course of his remarks alluded to the fact that a large share of the success which had attended his labors in the publication of his journal was due to the able assistance of *Edward P. Roberts, Esq.*, his chief of the editorial staff,

and to the many valuable correspondents he had secured to its pages.

The committee to prepare the testimonial (Messrs. Walsh, Wharton and Wm. Gilmore,) called on Mr. Samuel Kirk, silversmith of this city, to confer with him relative to the discharge of the duty assigned them, but found that that gentleman had anticipated their wishes, and had prepared already a silver goblet, richly and most tastefully chased, which he desired the committee to accept as a token of his interest in agricultural improvement. The committee accepted the present, and, at a meeting appointed for the purpose, made a formal presentation of the same to Mr. Sands; in the goblet was placed one hundred dollars in gold, which was in turn handed over to our better half, who made a suitable disposition thereof in the purchase of useful silverware. The goblet had engraved upon it the inscription "*A tribute of regard from the State Agricultural Society to Samuel Sands,*" which, with a similar tribute from the Maryland Institute, for services rendered to that institution, being a beautiful silver pitcher, both with suitable devices and inscription, now grace our sideboard, and are intended as heirlooms to those who come after us. Mr. Walsh, on behalf of the committee, in presenting the goblet, paid some flattering compliments to the editor, and a suitable return of thanks was tendered to the society for its acceptable token of the appreciation in which his services were held.

During the exhibition, Judge Chambers and a committee with him, who had been appointed to examine and report upon a number of essays, for which we had offered three premiums in silver plate, of \$50, \$30 and \$20, made a report thereupon; the essays were upon the *Restoration of Worn-out Lands*, and were awarded, the first, to Edward Stabler, of Montgomery county; the second to Col. Horace Capron, of Prince George's; and the third to Caleb Stabler, of Montgomery. Mr. Calvert, the President of the State Society, on our behalf, presented these prizes, the two latter to the winners in person, with suitable remarks, and the first to Mr. A. B. Davis, for his county man, Edward Stabler, who was prevented from being present in consequence of sickness at the time. We are almost tempted to reproduce these essays, for, with some slight alterations, they would be as greatly acceptable at this day as they were thirty years ago when they were first published, when they attracted great attention, and stirred up a spirit of improvement which has ever since left its mark on the agriculture of our State.

If we had not already trespassed upon the limits which we had intended, we would like to mention the names of the numerous host of exhibitors of live stock, of agricultural implements and machinery, and of household manufactures, which went to make up the show; and also more than allude to the address of Col. Carey, the orator of the day, for which the thanks of the society were tendered. Probably at no subsequent show were the exhibitors of agricultural machinery equal in numbers to those on hand on this occasion, not only from our own city and State, but from distant States.

An admirable report on sheep, by Col. N. Goldsborough, of Talbot, would be as admirably suited to the present day as to that at which it was presented; and another report on agricultural machinery, by M. Tilghman Goldsborough, of Talbot, would likewise bear a reproduction with profit at this time.

English or Flat Turnips.

Mr. Alexander Hyde, a well-known writer on agricultural topics, and a skillful and practical farmer, who is pronounced in his belief in the value of these roots, thus gives his views concerning them in the *New York Times*:

We do not claim that they are as nutritious or late-keeping as the Swedes, but they are so easily raised, and give so large a return for the labor and money invested, that they deserve a place on every stock farm. A thousand bushels of the old-fashioned flat turnips, costing not over 5 or 6 cents a bushel, and often selling at harvest at 5 to 10 times this sum, make an item in a farmer's income not to be despised in these pinching times; and if not sold, they will be found profitable to feed to almost all kinds of stock. Sheep eat them greedily, and make returns in wool, mutton, manure, and lambs. For young, growing cattle they are just the thing,—furnishing materials for making bones and muscles, building up a sizable carcass on which fat can afterward be placed by means of meal.

Objection is sometimes made to feeding turnips to milch cows on account of the flavor imparted to the milk; but if fed immediately after milking, and in small doses at first, this objection is in great manner obviated. A similar objection is made to feeding beef cattle with turnips, that the meat has the offensive turnip taste. This is true if turnips are fed largely, and up to the time of slaughter; but if the turnips are omitted a week or ten days before the cattle are killed no turnip flavor remains, and the meat is unusually juicy, tender, healthy, and well-flavored. From an observation of many years we very much prefer beef made from turnips and good early-cut hay, with a moderate allowance of meal, to that which is almost exclusively corn-fed. Corn diet makes the most tallow, and gives a peculiar rich yellow color to the quarters as they hang in the shambles, but we can't eat tallow, and have no fancy for beef that is half fat. Such meat is not profitable or healthy. Excessive fat is seldom accompanied with good health either in man or beast. Turnips are antiseptic, and counteract all inflammatory actions of the functions while the animal is fattening.

We now and then find a farmer who objects to turnips because they are all water and have no feeding virtue in them. Such men judge without knowledge. There is little use of arguing with them; but we do wish to ask how it happened, if turnips are all water, that the introduction of this vegetable revolutionized the agriculture of England? The turnip era is as important an epoch in her agricultural history as the Norman conquest is in her political. Stock began to multiply and improve, land was better cultivated and appreciated in value, rents

rose, and the farmer's calling stood on a higher plane. Those who decry turnips as destitute of feeding virtues only show their ignorance of these virtues. Few letter A farmers, nowadays, undertake to winter their stock on dry hay alone. Most feed roots of some sort; and turnips, either Swedes or English, are among the leading roots. It is not possible that these farmers are mistaken when they say that turnips cause growth in young stock, increase the flow of milk in cows, give appetite and health to fattening cattle, heavy fleeces to sheep, large lambs, and an abundance of milk for their support. It is not pretended that much hay is saved by feeding turnips, for the appetite and health of the stock are so stimulated by this succulent food that they require about as much hay as without turnips, and the profit comes in more and better beef, more milk, heavier fleeces, better lambs, and last, but not least, in larger and richer piles of manure.

Now that we are on this point of turnip virtue we must add that the testimony of all practical cultivators and feeders is corroborated by scientific investigation; for, though the turnip may be composed of a large percentage of water, (79 to 92 per cent.,) still, the solid part is rich in nutritive material. A farmer much prejudiced against turnips once brought us two envelopes, one labeled "Starch in a Potato," and the other "Starch in a Turnip." The former contained about a tablespoonful and the latter none; but his analysis was probably not very accurate,—certainly it did not agree with that of skilled chemists. Johnston, in his *Agricultural Chemistry*, gives the following analysis of the white turnip:

Water.....	79.0	Albumen.....	2.5
Starch.....	7.2	Common salt.....	0.5
Pectine.....	2.5	Loss.....	0.3
Sugar.....	8.0		

Total..... 100.0

The inorganic constituents of the turnip are also rich in potash and sulphuric and phosphoric acids, the ash being composed of nearly 50 per cent. of potash and over 20 per cent. of these acids. These analyses show plainly that turnips are no wishy-washy things, and can't be raised on land that is not rich with plant-food. We have been amused sometimes to notice the efforts of ignorant turnip culturists to raise this vegetable on poor soil, the idea seeming to be that such a cheap article would be glad of a chance to grow anywhere. It is true that turnips can be raised cheaply, but they require the best of soil. It was the custom of our fathers to raise them on virgin soil, freshly redeemed from the forest, and full of organic and inorganic matter. In a soft spongy bed of leaf-mold, on which the branches of trees have been burned, furnishing plenty of potash and phosphates, turnips do turn out large, smooth, and fine flavored, but it is possible to make an old pasture or mowing lot, or even old potato ground, into a good turnip patch.

Our plan for many years has been to raise turnips after early potatoes, plowing the patch as soon as the potatoes are dug, and harrowing in a liberal top-dressing of compost, made of muck or leaf-mold, or sods sauced with night-soil and wood-ashes. If night-soil cannot be had, any nitrogenous manure will answer for the compost,

and there is no danger of putting on too much. We want the soil so rich that it will force the turnips out of the ground, and push them right along at a 2:40 rate. Grains may be better for growing a long time and maturing slowly, but a succulent vegetable is better when forced to a rapid growth.

We raise turnips as a second crop after potatoes, not because this is the best mode, as both are potash plants, and hence draw heavily on the soil, but as a mere matter of land economy. If any one has an old pasture, or a spot in his mowing lot, which he wishes to reseed, it is a good plan to plow it in July, top dress with some well-rotted compost, in which, besides the nitrogenous manure, there is a liberal sprinkling of wood-ashes, and sow turnip and grass seed together. Both will be sure to take root, and the turnips will soon so cover the ground that the grass will not make much of a show the first season, but look out for a large crop next Summer. This is one of the best modes of restocking land which is too wet to plow in the Spring, and when one does not care to raise a hoed crop. In any event, harrow the compost, and sod till there is a mellow seed-bed, and be sure to put in a paucity of turnip-seed and a plenty of grass-seed.

As to the time for sowing, the old rule was the 20th of July, "whether wet or dry;" but we prefer turnips grown later in the season, and seldom sow till the 1st of August, and have secured good crops when the seed was put in as late as the 10th of August. With such late sowing the ground should be in good heart. The early Autumn frosts do no damage to this crop—in fact, we think they tone down the strong turnip flavor and make them more mild and palatable for table use. We have sown both broadcast and in drills. If the land is clear of foul weeds, we prefer sowing broadcast, and after sowing the crop needs no further attention till harvest, except it may be to sprinkle some plaster over the ground when the young shoots first put in an appearance. At this stage of their growth the little black turnip-beetle is wont to make his attack, and the plaster is a great drawback to his ravages, and at the same time is good food for turnips, furnishing the sulphuric acid that constitutes 12 per cent. of the ash of this vegetable, and also absorbing ammonia from the air and dew.

The strap-leaved red-top is a good variety to raise, especially for the table. This keeps well to February, but if it is desired to feed stock, the yellow Aberdeen is a later keeper. This is considered by many almost as good for stock-feeding as the Swede, but it does not grow quite as rapidly as the strap-leaf, and should be sown a little earlier. All kinds of turnips should be left in the ground as late as the weather will permit. We have often known them to make growth during the mild Indian Summer days, but generally they need to be harvested early in November.

TO PURIFY CESS POOLS AND SINKS.—Dissolve a few pounds of copperas in a bucket of water, and pour into sinks or vaults of water closets, and it will neutralize unpleasant odors and destroy deleterious exhalations.

The Tobacco Horn-Worm.

In allusion to the remarks of Mr. Baker, upon the subject of the tobacco horn-worm, published in the May No. of the *American Farmer*, the editor of the *Lancaster Farmer*, who is undoubtedly one of the ablest entomologists of our country, makes the following reply:

"If any of our readers entertain the same doubts, or are troubled about the identity of the tobacco worm, (we believe the Southern name of "Horn-worm" should be adopted by our tobacco growers, as it is known now that different kinds of worms infest the tobacco plant,) we would respectfully refer them to our *essay*, commencing on page 37, March number of *The Lancaster Farmer* for 1877. And they will also particularly bear in mind that there are two distinct species, at least, of these "Horn-worms." One comes much earlier than the other, and this one also attacks the tomato, the potato, the egg-plant, and other solanaceous vegetation. This species (*Sphinx carolina*) we have captured as early as the middle of June in the winged state. The other species (*Sphinx quinquenaculata*), confines itself almost exclusively to the tobacco plant unless no tobacco is accessible, and then it will also attack the potato and tomato. But in Lancaster county, at least, there is only one brood during the year of either of them, although the appearance often is that it is otherwise. But this appearance is owing to the fact that the adult female moths do not deposit all their eggs in one day, nor yet in one week, or perhaps in one month. They feed and deposit their eggs in the evening or at night, and only a few here and there on the plants at a time. These eggs hatch out the worms at different times, and these times may also differ from the different periods of deposition, owing to varied surrounding circumstances or meteorological contingencies, and hence there may appear to be a dozen or more different broods during the summer. Those that feed on the honey of the "Jimson-weed" can be destroyed by poisoning the honey of that plant, but those that come before that plant is in bloom cannot be captured in that way, but may be struck down with a paddle or be captured with a hand-net attached to the end of a pole."

Cultivating Wheat.

A committee appointed by the Lancaster Co. (Pa.) Farmers' Club, to visit Mr. Groff's farm to inspect his crop of wheat cultivated according to the method heretofore reported to the Club, and published in the *American Farmer*, made their report at the July meeting as follows:

President Cooper, as one of the committee appointed at the last meeting of the society to inspect Levi W. Groff's wheat, reported that the committee visited Mr. Groff's place, and fully endorsed the latter's method. He had no doubt it will pay, and pay handsomely, to cultivate wheat. He is satisfied it will increase the yield, and produce a stronger, straighter and taller stem. The fields, he thinks, will yield from 40 to

45 bushels per acre. He thinks cultivation retards the ripening of the crop; it is greener than any other he saw that day. Earlier varieties will have to be planted if this method is used.

W. McComsey was also one of the committee. He thought the advantages of cultivating the wheat crop are beyond all doubt. He thinks the system retards the maturity of the crop. It was more uniform than any he ever saw, and also longer in the straw, exceeding the uncultivated by far in this particular, and also in having longer heads. He believed earlier varieties should be sown, or else the usual varieties be sown earlier. If rust had not attacked the crop, the yield would have been still greater. The danger from rust is increased by its slow maturing, and this fact should also induce the planting of early varieties. He believed in a less favorable season the advantages of cultivation would have been still more apparent than they are as seen to-day on Mr. Groff's farm.

H. M. Engle endorsed what the other gentlemen had said. He believed there is a slight retardation in cultivated wheat. He has found such to be the case in experiments tried by himself. He did not believe in sowing earlier. By that plan you are apt to be attacked by the Hessian fly. Late ripening is no great disadvantage. Slow ripening gives us a finer, plumper grain, and this he believed is secured by cultivation, as the ground retains moisture better. Early wheat is the safest to grow, other things being equal. All the wheat ripens more slowly this year than usual, because of the cool season. With such weather as has prevailed during the past few days, all will ripen early enough.

Haymarket (Va.) Agricultural Club

Editors American Farmer:

The club met at Capt. R. H. Tyler's residence on the 12th inst., with President Brown in the chair. The June meeting had to be postponed on account of the sickness of the member at whose house the club was to meet. After the appointment of a committee of inspection, the club broke up for inspection on horseback, and rode about the farm viewing the stock, growing crops, etc. The fine stand of clover on the wheat-field was much admired,—Turner's Excel-sior, at the rate of 200 lbs. per acre, having been applied to the wheat.

The first question asked was, "Will it do to sow clover in the corn-field before laying by the corn?" The members have no personal experience in this matter. Timothy on bottom land has been sown in that way with success, the stalks keeping the land from washing. It was remarked that where clover had been drilled in with oats the same seemed to be more vigorous than where broadcasted. The majority nevertheless believe that clover-seed should only be covered lightly. The sowing of same in the fall by itself was recommended.

When should the second growth of clover be plowed under? The members believe that it is both economical and correct to let the clover fill and have the benefit of the formed seed at a future time when replowing. It was remarked

that careful German experiments showed that the substance plowed under benefitted the soil but little when applied to a neighboring field which had been bare. The shading of the soil and consequent mellowing and the absorption of the gases of the air did more to improve the soil than the direct influence of the vegetable matter turned under, especially when the land is plowed directly after the crop has been taken off. The great mass of roots remain and form the stalk of the plant. The comparatively small amount of mineral elements drawn from the soil by the seed are not lost, as they are returned. The trampling of the clover stack or the use of a chain attached to a plow were recommended. This discussion brought out the views of the members upon the merits of the 2 or 3-horse plows. The majority favors 3-horse plow for fallowing; the ground being hard and dry at that time of the year, the heavier 3-horse plow sticks better. The minority believe that if a small narrow furrow is taken they are able to plow as deep and do as good if not better work with the 2-horse plow, and expose at the same time more surface to the air. The club believes that a dry fallow is decidedly the best for the following crop.

Should we plow our corn during a dry spell, if our corn land is free of weeds and mellow, or wait until after a rain, when the same has become packed?

While all members agree that when the soil is packed a plowing during dry weather is a decided benefit, their views differ widely upon the question. Some claim that no good can be done by plowing if the soil is light, believing that the gases of the air can freely circulate and the moisture formed be absorbed; others claim that the root-pruning incident more or less to every plowing will decidedly check the plant, lessening the organs for absorption in dry weather to absorb moisture from the soil; that consequently such a course would be injurious, although the benefit, if a rain followed, is not doubted. The minority favor plowing even during dry weather. They contend that a soil that has laid some time is packed more or less, although not very apparent. They believe that the soil is similar to a sponge, and that parts of the same can be thoroughly saturated and be unable to absorb more; that by plowing we reverse the soil more or less and bring an unsaturated portion to the surface.

A stalk of oats with 240 grains was reported by Prest. Brown; the same was of the "Surprise" variety. The members reported progress in their fertilizing experiments, and will discuss the subject of the "Cultivation of Wheat" at the next meeting. W. L. HEUSER, Sec'y.

Enterprise Club.

Messrs. Editors American Farmer:

Twelve members and four guests assembled at the residence of Robert M. Stabler, July 13th. The afternoon was beautiful and pleasant after the week of hot weather and the bountiful rain of one and a quarter inches the evening before.

Samuel Hopkins presided; W. S. Bond, secretary.

We did not go far to inspect the premises; either because members were only too glad of an opportunity to loit in the shade, or from the fact that everything on and around this place—from the cable, self-adjusting, self-supporting clothesline to the rolling barn-doors,—was in such complete order, and the contrast between these and similar matters at home made the walk more painful to some of us the farther we proceeded. The only thing we noticed not in absolute and complete order was the seasoned wood corded up at the wood-house, which leaned slightly out of the perpendicular.

It would be a first-class investment for any young man in Maryland about to engage in agriculture to make his living out of it, to build up a comfortable home, to rear a family and educate them, to make a pilgrimage to this farm to see what can be done on worn-out land, with very little capital to begin with except capital energy, but plenty of that.

The secretary's minutes having been read and approved, we were called on to perform that part of the club's programme which is never left out or never slighted, namely: the partaking of the hospitalities of the tea-table, so carefully and successfully prepared by the hostess. During this interval of mental relaxation and physical refreshment we are allowed by our by-laws to indulge in conversing on the political topics of the day. For though a lion may be dangerous while he is feeding, man is not likely to quarrel, even about politics, whilst partaking of good bread and coffee. It is safe, however, to say, that these discussions do not edify the participants much more than they interest the ladies who so kindly wait on the table.

After tea the subject of establishing a creamery was taken up as unfinished business. The whole matter was referred to Aza M. Stabler, who was directed to make further inquiries and report.

The following questions comprise those of most interest: Will new crop Early Rose potatoes grow if planted now? Yes. How to eradicate red dock? Ans.—Cut below the crown and burn the seed. In connection with the above, Jos. T. Moore advised us to destroy the blue-bottle weed on sight, should it make its appearance, as it has proved to be a great pest in some of the Eastern Shore counties.

What will prevent horses from slobbering on first-crop hay? Ans.—Cabbage leaves. A member asked if it was any worse for a horse to slobber than for a man to expectorate ten gallons of tobacco-juice per day. The foreman ruled this question out of order as being personal, he himself using the weed liberally, yet always inclined to be fleshy and in a thriving condition.

A guest, W. P. Miller, introduced the subject of cultivating wheat, and a desire was expressed by several that experiments should be tried by some careful persons.

The majority of those present are in favor of pasturing young clover in wheat stubble, moderately, when the ground is not too wet.

Jos. T. Moore requested that members bring to a future meeting an estimate of the cost per bushel of raising the present crops of wheat. He estimates that his wheat cost him, in the half-bushel, from 75 to 88 cents. Then adjourned to meet August 10th, at the house of E. P. Thomas.

Yesterday we were visited by a considerable thunder-storm, when about $2\frac{1}{2}$ inches of water fell in a short time. Corn was blown down very much.

Our farmers are nearly all through with their harvest. An immense crop of hay has been secured, mostly in fine condition. Wheat is above an average crop, though not so large a yield as last year. Apples are a poor crop and peaches almost an entire failure.

Yours truly,

Sandy Spring, July 20, 1878.

N. E. D.

Improving Poor Land.

Messrs. Editors American Farmer:

A good many brother-farmers have been kind enough to give their opinions with regard to the *modus operandi* of renovating worn-out land. All of them have given useful hints as well as plausible theories. They have demonstrated the practicability of it. It would seem wasting time and throwing away paper to say much more about it. An attentive reader of the "*Farmer*" may recollect many instances in parts of Virginia and elsewhere, where old worn-out fields have fallen into reformers and resolute men's hands, and are now productive and remunerative.

I have come to the conclusion it is as much in the man as it is in the land. A lazy man on a poor place, and one that does not take hold of advanced ideas, is apt to "come out at the little end of the horn;" he and the land are sterile and like the proverb—"out of nothing, nothing can come." I have heard it said of men if you would put them on a ledge of rock or a barren waste, they would eke out a living or become independent. There are cereals and animals suitable to all soils and climates. Adapt the seed to the soil, and find out the work, and the substance that will promote its growth; where there is a will there is a way.

If you can make five barrels to the acre this year of corn, next time try to make at least half as much more. No doubt you recollect how the man got to be able to shoulder the bull,—he commenced by lifting the calf up every morning. To get a farm rich, commence with a patch; put something on it to make it yield, scrape up everything that can be made to decompose, cover it up to prevent the sun from exhaling its substance; with a slight covering over the most naked places, some vegetation will be apt to make its appearance. Leaves, ashes and other things will assist to produce a compost with which to enrich the soil. Meantime relax not in exertion, and economize in time and material; what is saved is so much made.

Want is the mother of invention. Try and add something daily to your knowledge-box; put your thoughts to work and improvise something that will facilitate work and improve the implements and working tools. It is not always the largest area that produces the most. A moderate garden or orchard will bring more when well tilled than larger not properly managed.

Mr. A. W. works hard, produces good crops; but somehow does not seem to advance in means. A lack of management and improvidence are doubtless impediments to wealth and independ-

ence. He has better land and can do more work than B. W.; but B's management, care and thrift seem every day to add to his means in stock and property. Farmers must find out not only what their fellow-farmers do, but must observe how the world wags. They must keep an eye to the advance of improvements in farming and things in general. They will see that it takes means as well as skill and labor to get along, and that money makes the mare go.

To be a wise man you must read and practice. All good men try to get others to do well, both by example and precept. Hence many of our best men impart information to the public through papers and magazines. The man that takes farming papers and preserves them, in time has a library of useful knowledge. There are contributors from all sections: he sees how things are done at home and abroad. The index points out where everything can be found, and things can be learned from root to branches. To conclude, every one that wants to improve his land, his stock, or procure the proper implements, peruse the *American Farmer*,—for in it all the various ways and means are laid down by the editors and able contributors. The farm, the orchard, the garden, the poultry yard, the flower garden, are treated on *in extenso*. So is the rearing and fattening of stock. Let the conceited man pause:

"Be wise and learn thyself to scan,
And know that pride was never made for man."

There are very few heads too full of sense.—Of course, philosophers are in the minority. C.

Notes and Comments on the July No. American Farmer.

The opening article, from the address of C. T. Cockey, strikes a key-note as regards success in the farmer's calling.

Education without capital will elevate the farmer more than capital without education; still the two combined conduce to the greater advancement, while association seems an essential accompaniment; for to sharpen iron, friction or rubbing is necessary,—so mind must be pitted against mind.

Education is as essential to the day laborer as to any other class on the farm, or in the community; therefore our endeavors should include this class as well as proprietors and managers, for as a general thing we find the greatest wanting among the laboring and lower classes—those whose energies necessarily must be devoted to procuring their daily sustenance and that of those depending on them. To accomplish this devolves upon State and local government, to provide ways and means,—thus making it compulsory that all should attend on the means of instruction sufficiently to attain some fixed standard of advancement as a minimum.

The masses must be educated to a higher standard than the present general average, before we shall attain the desired standing for the farmer; any and all things which will tend to this advancement should be encouraged.

On the Culture of Tobacco.—The series of articles, of which this is the concluding one, by J. M. Baker, must prove of great value to all

young and prospective tobacco-growers, as well as to many older ones, in the section where his mode is most applicable. *Thorough, careful and intelligent culture* is the grand secret of success in the production of any special crop from the soil and farm; and he is the most successful who intelligently follows this general rule.

Assorting and Classing Tobacco.—The tobacco producer, or other, should not wait for the dealer, manufacturer or consumer, to demand a superior article, but by producing and putting it in market cause the demand, as it certainly will, and will pay for all trouble, extra expense, &c.,—perhaps not so largely at first as afterwards, for first productions are more expensive than those which follow at a later date after "the trade is learned."

W. H. WHITE.

Tidewater Virginia.

Messrs. Editors American Farmer:

If you can allow me space in your columns, I would be glad to call the attention of persons wishing to purchase homes to this section of Virginia. Many are disposed to sell their homesteads, or, at least, a portion of them,—some because they cannot command the labor to cultivate them, and others from the desire to relieve themselves of the galling weight of pecuniary embarrassments. It thus happens that there is much land here for sale; but unfortunately for the owners, there are no buyers. Among our own people, those who have the means have already land enough. We have therefore to look to other parts for buyers. But from some cause or other, this locality, presenting, as we think, so many advantages, is strangely overlooked by persons of other States who are disposed to emigrate. This perhaps results from an unfounded dread of the location and climate in respect to health. Among persons at a distance, who have never been among us, there exists very exaggerated ideas as to the unhealthiness of this region. It is true that we cannot claim exemption from the ills that afflict the human family in the shape of diseases. The fact is admitted that we are subject to malarial disease, at certain seasons, such as chills and intermittent fevers, which are not common in some sections of the country. These diseases, as a general thing, make their annual visits to locations near rivers and creeks. Our forest homes are comparatively free from these annoyances. We call them annoyances because they seldom assume a serious character. They are easily controlled, and readily relieved by remedies well known to all, so that there is seldom necessity for resorting to medical skill. Make the most of these troubles. Yet we claim, and believe, that we have ample compensation in our greater exemption from those terrible scourges such as typhoid and other malignant fevers which are common in other parts of the country considered healthy, but almost unknown here. My own experience enables me to testify that there are places here entirely exempt from disease caused by malaria. The place where I now reside has been my home for nearly twenty years; during a large portion of this time my family numbered from fifteen to twenty, and no case of chills or other disease which could be traced to the location has ever occurred. Moreover, the

mortuary statistics of this section compare favorably with those of any other portion of the State. Taking, then, all things together, it is my conscientious belief that a man has as a good chance for general health and long life here as anywhere else; and this is so even in the case of those who were born and raised as I was in regions where health is thought to have chosen her favorite abode.

Could the false impression in regard to the unhealthiness of the place be removed, and the belief substituted in its place that a man might come to reside here without sacrificing the hope of health and a long life, there would doubtless be the introduction of a new and prosperous state of things in this neglected portion of our State. There would at once set in upon our shores a tide of emigration, and our lands, which can now hardly be sold for one-tenth of their real value as compared with the prices paid for lands in other States, and in portions of our own State, would rapidly appreciate in value. Why should it not be so? We have advantages in reference to the farming interests which are scarcely surpassed by any, and equalled by few. Our lands, though much exhausted by a lazy and improvident system of cultivation, are of good natural quality, adapted to the various productions which succeed in other parts of the State, are easily tilled, and bountifully reward all judicious appliances for their improvement, which has been evidenced by instances of the more than four-fold production which has resulted from efforts in this direction. The grapes succeed well. I have seen as luxuriant a growth of clover here as I ever saw anywhere. I have seen it on a part of my own land which has been recovered from a condition of almost entire exhaustion, chiefly by the application of commercial fertilizers on a succession of tobacco crops. We are highly favored with facilities for cheap transportation. We are between two noble rivers, and can hardly get more than six miles from navigation. We have steamers to Fredericksburg, to Washington, and to Baltimore. There are admirable facilities for marketing, and, from a few efforts that have been made, there is no doubt but that market-gardening will become an institution here. Our soil is well adapted to fruits, and peculiarly so the smaller fruits which can be placed in the markets some week or ten days earlier than they can be brought in from Maryland and Delaware. Considering these advantages in connection with the exceedingly low price of the lands, (for there is no place where lands have depreciated so far below their real and relative values,) we can honestly invite all who are looking for homes to come and see what advantages Westmoreland offers before they buy elsewhere. Coming from whatever part of the country, persons seeking homes will meet with a cordial welcome, and, should they settle among us, they will find this community well disposed to be sociable and ready to extend to them the measure of regard and friendship to which their worth of character and propriety of conduct entitle them. This has been the pleasant experience of some of our northern friends, and if any one has had a different experience he has none to blame but himself. D. M. WHARTON.

Westmoreland Co., Va.

OUR FRENCH LETTER.

The Exhibition.

Messrs. Editors American Farmer:

It was in the name of agriculture that the International Exhibition was decreed, and this time it has been honored in the observance. The present agricultural display is as successful as that of 1867 was a failure. In the exhibition of breeding cattle, perhaps on the whole the show is not superior to that of 1855. Despite the reputation of the French for lucidity of classification and simplicity of organization, there is something to be desired in the way of more convenient grouping—exhibits are diversified, but this is in great part owing to the requirements of the general contest. The live stock were concentrated on the terrace of the Invalides,—this building, on entering by the Quai d'Orsay, forming the background; on the right were the sheds allocated to the foreign, on the left to the French exhibits. The front rows were devoted to cattle, parallel to them the sheep, and behind the latter, pigs. Barn-door fowl were comprised in an alley of the background, facing the entrance. The machinery is dispersed, extending from the terrace of the Invalides, by a covered gallery, up to the palatial building on the Champ de Mars, and almost, by the aid of annexes, running round it. The products of agriculture have had naturally to be centred with their national sections.

The impression is forced on the visitor, that agriculture in general has made rapid strides since the cosmopolitan contest in 1867. The progress is more striking in the case of this country; the marvellous inventions of England and America have stimulated French implement makers, many of whom turn out first-class work. But the United States has not forgotten her peculiar genius, in studying the wants of agricultural life, and reducing the cost of manual labor by special machines; whilst England, by her chemical discoveries and agronomical experiments, has rendered agriculture scientific and rational. France is behind other nations in the application of science and mechanics to modern farming; not from deficient intelligence, or ignorance of the necessities of the age, but from a lethargy rather than indifference connected with agriculture; to a deficiency of capital for this branch of national prosperity, and, perhaps above all, to the excessive dearness of such primary matters as iron and coal. In France, the seller lacks, rather than the purchaser of machines; the market for agricultural implements is next to limitless; it is estimated that the agricultural community requires 200,000 ploughs per annum, and a provision of 200,000 sowing machines, and half that number of mowers and reapers.

The Cattle Show

closed on the 17th after remaining open ten days. There were 600 exhibitors, owners of 1,700 cattle, 825 sheep, 400 pigs, and 2,668 poultry. France, England, Holland, Belgium and Italy were the chief nations that entered the lists. England has been reproached for not making a better display, especially in short-horns, respecting which breed sharp controversies are taking

place both in this country and Belgium. But it ought not to be forgotten, that in these times of quarantine laws for stock returning to England, the owner of a prime lot can be understood to hesitate. The collection of French was then superior to that of English Durhams. On the other hand, the Angus, Suffolk, Aberdeen, and Galloway, hornless races, attracted attention by the beauty of their forms; and if their milking qualities are in keeping with their conformation, they would make excellent crosses in France. Studying the French cattle, it is beyond doubt that great ameliorations have been made in breeding; this is the most notable point; the progress would have been greater, only it is but now French farmers have found out that cattle are a source of prosperity,—not a necessary evil. The old races are those transformed without losing their distinctive traits; judgment is displayed in the selection of breeding animals, the excellencies of one correcting the defects of the other.

The Display of Sheep

was really splendid; those from England were positively magnificent. A superb Southdown ram has been secured by a French breeder; Oxford-downs were very numerous and good; they combine the production of long wool with an excellent quality of meat. The Shropshire downs were absent; this is the more regrettable, as they are to sheep what the Durhams are to cattle. They have a cosmopolitan character, adapt themselves to every climate, but, above all, are unrivaled for crossing purposes. English lots carried off the blue ribbons.

Implements.

Leaving the live-stock annex, and making an agricultural pilgrimage towards the Champ de Mars, the connecting gallery is occupied by implements from French makers. It is worth noticing how closely the provincial manufacturers tread on the heels of the Paris houses. In the several small annexes parallel with the main building, are departmental collections of agricultural produce; the grounds in the vicinity are ornamented with specimens of the contents of the leading private nurseries. There is a very pretty kiosque devoted to the hatching machines, where chickens are manufactured daily by the hundred. After this we enter the classes proper; there are excellent specimens of various manures; Menier, of chocolate fame, demonstrates the advantage of pulverizing the soil; galleries succeed, devoted to cereals, milk, butter, eggs, vegetables, fruits &c., fresh and preserved; to wines, brandies, liquors, &c.

In the section of foreign implements, England makes a splendid display; every well-known manufacturer appears to be represented, and the exhibits are surrounded with almost drawing-room accessories. A steam reaping-machine has for the first time been exhibited in France; Aveling & Porter are the makers. Will it be tried—will any implements be tried? On this subject the decision rests with the jurors. Smyth has a remarkably (new model) fine sowing machine. Marshall & Co. have a curious machine for rolling the leaves of tea. The exhibits of manure are numerous and well classed. The United States are crowded, but

have made the most of their limited space; there are several curiosities to be met with, and the names of Wood, Osborne, Johnston, &c., recall old competitors of reapers and mowers, and who are eager to commence at a moment's notice. There is a trophy in the centre, containing a very rich collection of all the products in the States. Closely, is the Canadian section, but the exhibits here are more rural curiosities than implements of the age. Norway is in the same innocent category; what she has of new is what is borrowed from eminent manufacturers. Italy makes up for paucity of instruments by agricultural products—notably, wines, silk, oils, &c. Spain and Hungary send wines, so does Portugal, including some "old Port" of the 1751 vintage. She also displays translucent porcelain goblets, employed in the cellars for judging the color and limpidity of the wines.

The Agricultural International Congress has held its sittings, extending over ten days; every morning the meetings of the sections took place in the Tuilleries, and a public *s'ance* in the afternoon at the Trocadero; very important ideas were put forward and examined, and later I shall notice the principal novelties. Attention was chiefly devoted to the small aid given by the banking interest to the agricultural community; the phylloxera received international denunciations, but no remedies, and as if anticipating the bad treatment in store for it, the bug has extended his ravages; to try sulphuret of carbon and American stocks, coupled with a determination to combat the insidious enemy to the last, formed the gist of the phylloxera debate. The *s'ance* devoted to agricultural education was very interesting, and the chief features of the papers read were to the effect that agricultural subjects should be taught in all national schools by means of special but simple text-books, and that this instruction ought to have a graduated ascension, following the financial means and capacities of students. Very high encomiums were passed on the systems of agricultural education pursued in Belgium and the United States.

The continued wet season is very depressing, and can rapidly become alarming; much corn is laid, and vegetation is rank; the hay crop is being saved under the most possible conditions; if it does not rain all day, it is certain to do so all night. It would be an excellent occasion for the exhibitor of "movable hay-making sheds" to try his invention, as well as his "portable light-house" for night field-work. Many farmers, in despair or desperation, are trying the plan of trench-preserving the grass. If well conducted it is quite practicable. The flowering both of the vines and cereals, is taking place under disquieting circumstances. The reports from the beet-growing centres state, the roots are likely to be very aqueous this season.

The suppression in Italy of the office of minister of agriculture has created a painful impression; to leave agricultural progress to private initiative in that country, so eminently agricultural, is to put back the dial of time. In France, the minister of agriculture is becoming every year the most important functionary in the cabinet; the International Exhibition has been placed under his control.

F. C.

Paris, June 20, 1878.

Pigs for Breeders, and Pigs for Pork.

The *National Live-Stock Journal* thus discourses on the difference in their treatment advisable:

Pigs destined for breeding purposes require a different treatment from those intended to be converted into pork at an early age. In the latter case, the most rapid forcing is the most economical method of treatment; while in the former, a steady, healthy growth is all that should be aimed at. As remarked in a former article in these columns, pork can be made more rapidly and more cheaply, with any of our improved breeds of hogs, during the first ten months of the pig's life, than at any subsequent period; but this implies higher feeding than is compatible with a healthy development of the vital organs and of the bony structure. When early conversion into pork is the object, the pigs should be fed mainly on concentrated food—the object being to grow flesh—corn, variously prepared, being the most available as a basis, while with those designed for breeding purposes, or to be kept to mature age before being fattened for pork, such a course will not prove a profitable one.

Pigs that are to be kept for breeders should have a mixed diet—plenty of bone and muscle-forming food—and ample opportunity for exercise. If permitted the run of a good pasture (clover is the best,) a moderate supply of corn will do them good, and aid in promoting a healthy growth; but if the circumstances of the breeder are such that he cannot have the benefit of pasture for his pigs, then he must endeavor to supply a substitute by using a variety of food—such as skimmed milk, wheat middlings, ground oats, mixed with oil-meal occasionally. A most excellent food may be prepared by mixing six parts of good peas with five parts of corn-meal and one part of oil-meal; or the peas, corn and flaxseed may be cooked, and fed without grinding if desired. Oats and peas ground together, and cooked, make an excellent food. Cooked potatoes, mixed with corn-meal, make a good combination—in short, all the various grains and roots raised on the farm may be used to advantage in raising pigs, and they should nearly all be used when the pigs are not allowed the run of a good pasture. A variety of food, such as is above suggested, fed liberally, and accompanied by plenty of exercise, will promote a healthy and symmetrical development, and also ensure a steady growth.

Such a course of feeding as overloads the pig with fat, or forces him to an unnatural growth, is quite likely to result in loss of the reproductive powers. Great disappointment has often resulted from the purchase of unnaturally forced pigs at fairs by inexperienced breeders. The writer himself has bought his knowledge dearly—having on several occasions paid extravagant prices for premium pigs, and found them utterly sterile—and long since adopted the practice of requiring a special guarantee whenever purchasing one that had been "fitted for the fairs."

THE WESTERN MARYLAND AGRICULTURAL SOCIETY will hold its first Fair at Cumberland, Oct. 22, 25.

*Design for a Suburban or Country House.

By Palliser, Palliser & Co., Architects, Bridgeport, Conn.



the waiter's pantry or china closet, (C. C.) the pantry (P.) being accessible from kitchen and connected with china closet by means of a small sliding door in dividing partition ; the stairs to cellar are from kitchen.

As will be seen by the plan, the parlor and sitting-room can on special occasions be thrown together by means of sliding doors ; and the sitting and dining-room being so that they are accessible to both front and back halls, makes a very desirable feature, especially as the sitting and dining-rooms will be the most used of any rooms in the house ; and the back stairs being for use only, they can be used from these rooms to good advantage. The parlor and sitting-room are on the south side of the house.

The second floor contains four large chambers, (C.) three good dressing-rooms, (D. R.) and bathroom, (B. R.) with an abundance of closets (Cl.). There is an attic over the whole house, which will be found to be a great convenience for storage and other purposes.

The rooms are all well lighted and ventilated, the open fire-places as introduced being the best and simplest method of heating and ventilating yet devised. This design can be executed in a plain and substantial manner for from \$2,500 to \$3,000, according to location, and we trust that some of your readers who are intending to build—and there are few who do not intend to build homes for themselves sometime in their lives—may find some suggestions in this design that will be of value to them.

*This design is from Palliser's American Cottage Homes, where it is fully illustrated by scale drawings.

Soluble and Finely-Ground Phosphates.

J. B. Lawes, writing to the *North British Agriculturist*, says :—"The relative value to agriculturists of finely-ground mineral phosphates compared with the same phosphates dissolved by acid can never be properly estimated by the continuous growth of roots. We have evidence that the gypsum, which is present in large quantities in soluble phosphates, has a very beneficial effect upon clover which forms part of a rotation, though the super-phosphate had not been applied

directly to the clover, but to the roots, two years previously. When soluble phosphate of lime is precipitated in the soil it is in a finer state of division than can be effected by any mechanical operation ; and as minuteness of division is one of the great objects to be attained, it would be reasonable to conclude that a dissolved phosphate would be more efficacious than one that was merely ground. Although, however, phosphates in every possible form have been under experiment here for about forty years, I have nothing conclusive to bring forward in regard to the great superiority of soluble over insoluble phosphates."

Deer Creek Farmers' Club.

This club met July 20th, at the residence of Mr. R. John Rogers,—Mr. William Webster in the chair. Messrs. Moores, Bayless and S. B. Silver, the committee appointed to inspect the farm and surroundings, made a report highly commending everything they saw and saying that Mr. Rogers might be classed among the good farmers of the county.

The question announced for discussion was:

"What Crop should Wheat Follow?"

And we take as usual the report of it in the *Aegis*:

John Moores sows wheat on stalk ground and oat stubble. Wheat will grow after any crop if the ground is well worked. He thought it would grow better on clover turned down, from the fact that 30 or 40 years ago wheat could only be raised after clover or potatoes. Now, from the improved condition of the land, wheat can be successfully grown after corn or other crops. The main secret in raising wheat is to work the ground thoroughly. It should be harrowed every six or eight days. Wheat stubble generally gets hard and cloddy. If harrowed and well pulverized it will get moist and you can sow at any time. Bone should be sowed as soon as the ground is plowed. Last year he sowed 500 lbs. of bone and three or four bushels of salt to the acre, and had an extra crop of wheat. It was his experience that oat-ground wheat is better than corn-ground wheat.

George Grant said he never sows corn ground in wheat. It might pay well for farmers who have a large force, but it is a rough way of farming. Farmers ought to sow oats. It saves the labor of taking the corn off for wheat. As a general thing you can raise a crop of oats and then have as much wheat from the same land as in any other way. Prefers to plow down clover sod for wheat. His plan was to sow wheat on clover sod; corn on wheat stubble; then sow oats and clover seed, harrowing them in together. Some years ago he plowed clover down and sowed wheat. The next year the ground was plowed for corn, and clover came up pretty thick, though it had not come up at all in the wheat. Clover seed can be sown deep and will not decay. It is of advantage to sow it on rough ground, harrowing it in.

Wm. F. Hays agreed with the majority of the members in preferring clover sod for wheat. Had plowed under clover sod with no fertilizer and raised 35 bushels to the acre. Never would follow wheat with wheat. Would let clover lay one or two years before plowing under. Clover should be sowed as early as possible in the spring on wheat and harrowed in. The harrowing does not injure the wheat, but is a benefit to it. Likes to sow wheat after oat stubble.

Mr. Rogers said all would agree that plowing under clover was the best chance for wheat, but whether the plan is wise or not is questionable. He thought it best to seed corn-ground to wheat. You might not raise so much wheat as to follow clover, but it will pay better. Wheat had better follow corn than oats, unless you sow oats and

clover. Clean timothy sod might do very well for wheat, but if there is any blue grass in it it is a risky business, as the blue grass is almost sure to affect the growth of wheat. Would plow corn-ground wheat the next time for wheat again, or put out stubble in wheat. The latter must be well manured to raise a crop of wheat. In putting corn ground in wheat there is no difficulty in getting it in as early as on oat stubble.

James Lee thought wheat should always follow stalk ground, and clover should be sown with the wheat. The clover should remain one or two years and then be plowed down for wheat again. Had never sowed wheat on timothy stubble, but had heard that timothy plowed down in the summer would produce a good crop of wheat. Does not plow twice in succession for wheat, but thought it better to mow clover the first year and plow it the second year for wheat.

S. B. Silver remarked that he had plowed timothy stubble year before last, and had twenty-five bushels of wheat to the acre. He had sowed clover on corn ground, but let it lay two years and had as good a crop of wheat as he had ever cut. His practice is to put corn ground in wheat, then in wheat again and seed to grass. Would not sow wheat at all were it not to set grass seed.

Wm. Munnikhuysen said wheat was better after clover. Has been in the habit of putting corn ground in wheat; then put on a little bone and stubble it down for wheat again. Has raised good wheat and noticed that his grass is now good.

James Lee said there was apt to be more fly by plowing wheat stubble for wheat the second time. It would be a good idea, he said, to burn the stubble so as to kill the fly.

R. Harris Archer.—Circumstances alter cases. If land is poor, wheat should follow clover all the time. Follow corn with oats, then clover, then wheat. Where land is good, follow corn with wheat the same fall and next fall stubble down with wheat. By this mode you will get rid of briars, weeds, &c. In all cases the wheat should be heavily manured. In turning down clover with wheat, if the ground is very good the wheat will fall down. Weeds and briars will also be more apt to grow than if you stubble the wheat. Besides, grass seeds are more certain to take after thorough cultivation.

A discussion then took place on eradicating briars, &c., in which Wm. Webster said the best way to kill them was to mow them twice a year, in May and in August. The main subject being resumed,

S. M. Bayless said his father's method had been to seed corn ground down to wheat and grass, his purpose being not to plow in summer. He did not like that way himself, because it leaves the field rough. Generally plows it up and puts it in wheat the second time. The best way is to seed in clover, let it lay two years and then plow down for wheat.

James H. Ball said he would always, if he could, sow corn ground with clover and let it lay a year or two before plowing. You would then be certain of a crop of wheat, and it is the true preparation for the crop. Does not like to sow wheat after oat stubble.

George R. Glasgow prefers to plow under clover when it is in bloom. Would not plow stubble for wheat. His average of wheat has been 15 bushels to the acre. It is important to plow under as much clover as possible for wheat, and it should be thoroughly turned under. Also applies fertilizers on the clover for wheat. Uses a compost of bone, scrapings of the hen-house, plaster, salt, &c. Plaster will make the bone act quicker and salt will stiffen the straw. Has no regular formula for his compost, but thinks 2 or 3 bushels of salt, 100 lbs. of plaster, 300 lbs. of bone and 100 lbs. of scrapings enough for an acre. Sows clover seed in corn-ground wheat. Whether he puts corn ground in oats or corn, he sows clover. Sows clover and timothy with wheat.

Thomas Lochary puts wheat in corn ground. Uses bone, which he prefers to phosphate. Applies the bone for wheat after the corn is taken off. Plows sod for corn. For the last three years his wheat has averaged 20 bushels to the acre on from 30 to 50 acres. Twice he has sowed clover at the last working of corn. Once had a fair set to plow under for wheat. The next time had none.

Mr. Ball thought if clover was to be sown in corn it should be done before working the corn at all.

Thomas A. Hays said he believed in thorough tillage before planting anything. The ground should be fine and compact. He would advocate turning down clover. Does not like corn-ground or stubble wheat if he can help it. The reason why some farmers do not have good wheat after oats is because they put nothing on the oats.—Drills clover in ahead of the oats and rolls the ground afterwards. Last year he plowed 20 acres. Put one-third in buckwheat, one-third in peas and one-third in rye. No fertilizer was used. They were turned down in September and the land put in good condition. The buckwheat was very large, and there he had the best wheat.

George E. Silver said his present practice is to put one-half his corn ground each year in wheat, following the wheat stubble with wheat. Agreed with a remark made at a previous meeting by Mr. Archer, that we should not raise one crop to the detriment of another. Likes Mr. Glasgow's plan of following clover with wheat, and believes more benefit is derived from the roots than from the tops.

William Webster said that farmers could not always follow the best system. Turning clover down will make wheat certain, but he would not hesitate to put wheat in corn ground, and follow wheat with wheat, if he used fertilizers. Was no special advocate of oats, but would rather raise a crop of oats than let the land lie idle. It would be better to sow clover if it is certain to take. Any wheat crop is an uncertainty unless the ground is thoroughly prepared.

Mr. S. B. Silver reported that he had planted some potatoes received from the Agricultural Department at Washington. They produced 4 bushels from half a peck, and prove to be superior to the Early Rose.

Mr. Munnikhuyse also reported the result of some Patent Office potatoes. One variety, planted on the 8d of April, came up ten days earlier

than the Early Rose. The vines were remarkably small, and are now all dead. The potatoes are as large as those planted, and when cooked are white, mellow and delicious. He thought they would ripen in six or seven weeks from the time of planting.

Adjourned to meet at Mr. Geo. R. Glasgow's, August 10. •••

Care of Dairy Stock.

Mr. L. S. Wood, said to be one of the most successful dairymen in Vermont, gives a local paper the following account of his general management of his cows:

Though in favor of the careful selection and breeding of dairy stock, I still maintain that the profits of any dairy will depend in a great measure on good care and liberal feed. It is an old saying, that "what is worth doing at all is worth doing well," and in no case is it more true than in keeping stock; an animal that is worth keeping at all is worth keeping well. The successful breeder as well as dairyman must see that his stock is kept comfortable and quiet at all times. In summer it may be turned to pasture, and should be taught to stay where it is put. This I consider one of the most important things to be thought of in the way of care. I have always noticed when stock of any kind get the habit of getting out of the pasture and running where they please, even if they please to run in the mowing or cornfield, they will not do well; they become restless and uneasy, often stoned, chased by dogs, made wild, and many times otherwise injured. The best and cheapest way to teach them this is to see that the fence is properly repaired before they are turned out. A sufficient amount of feed, plenty of good running water, and salt once or twice a week, is all that is necessary for young stock. Cows that are to be driven to and from pasture should never be chased or worried by boys or dogs. If driven slowly and carefully they may travel a mile or more each way, without any perceivable injury. Cows are creatures of habit and will learn to be at the bars at about the same time, and should be driven and milked as nearly as possible at the same time each day. The same person should, if possible, milk the same cows through the entire season. No harsh treatment to the cow or loud talk among the milkers should be allowed, but milking should be done as quickly as possible and in the most quiet manner. In my own dairy, I have cows that think they must be milked first, and as soon as I go into the yard with a pail, will follow me until I stop and milk them. This habit of theirs I take pleasure in gratifying. The time of milking should be regular. My own time is about the first chore in the morning and last at night, always milking by daylight. After milking at night in summer the cows are all tied up in the barn and fed, on an average, three pints of corn meal, and then turned out to lie in the yards, or under the sheds if stormy.

When the feed fails in consequence of drought or any other cause, I feed fodder corn, all they will eat as long as it lasts, or until the frost kills

it. If not allowed to go to fall feed at this time feed rowen. At this season of the year I mix meal and bran together in equal parts, and feed from two to three quarts of the mixture through the fall and winter, or as long as they are in milk, which is about ten months. Cows that come in the fall and winter will require more feed; and if good milkers may be fed, with profit, twice the amount named, while giving a large flow of milk; but should be fed much less the summer following.

Care should be taken to have plenty of good sweet, early-cut hay to feed while they are giving milk. Corn fodder is very good feed for cows, but I think it poor economy to feed straw to them; it cannot be made equal to hay by feeding more meal; they will not keep up a good flow of milk, and cows may be dried up by feeding too much corn meal, especially at the season of the year when they are inclined that way. When dry they may be fed poorer hay and coarse fodder. If the cow is in proper condition or out at pasture, do not feed meal.

Cows should have good, comfortable winter quarters; should not be out in the storm or cold winds, but they enjoy sunshine and pleasant weather. If kept in the stable through the day should be watered morning and night, and fed at least three times, unless the Barre system of feeding is practiced, which is to feed continually in the morning, a little at a time, until about ten o'clock, when they are allowed to rest until three in the afternoon, when the same process is repeated until they have eaten enough.

In my own dairy the time for having cows come in is at all times of the year, but probably more in the fall than at any other time. If properly kept, a good yield of butter can be made, and of good quality throughout the winter. Calves can also be raised at this time of year to quite as good advantage as at any other time. Cows kept in this way will be in good condition when dry and may be kept on coarse fodder until near the time coming in, when they should have good hay and two quarts of oats daily until they calve, and then should have light feed for a few days with warm water to drink and a warm, dry place.

The calf is allowed to be with the cow until two or three days old, when it is taken away and taught to drink if it is to be raised. It is an easy matter to teach calves to drink if done at this age, but more difficult as they grow older. The calf should not be allowed to get too hungry. The practice of letting it go over one feed before trying to see if it will drink, and a second if it does not drink readily and without spouting a part through its nose to the great discomfort of the feeder, is useless and barbarous, and should never be practiced. A little patience and good temper, with the aid of the finger for a few times, is all that is necessary to teach a calf to drink.

Fall and winter calves may be turned out in the spring, but spring calves will do much better to be kept up through the hot weather.

PASTURE of the best kind will produce more milk of the best quality than any other feed. A quart of meal twice a day is worth something in promoting gentleness.

The Hereford Cattle.

Some months ago we made an extract from the series of papers published by Prof. Ellzey, of the Virginia Agricultural College, on the several breeds of cattle in this country from that on the Herefords, in which, considering their points with discriminating fairness, he concludes that they are over-matched by both Short-horns and Devons, in the excellence of the grades they produce, (which is the true test of the value of thoroughbred animals,) and excelled by both those breeds in the quality of their flesh; whilst their deficiency as milkers unfit them at the same time for the general farmer's use.

In a later issue, we referred, as a matter of current interest, to the endeavor being made at the West by an extensive breeder of the race, to bring these cattle into favorable comparison with the Short-horns as beef-producers, and to account for the lack of favor which American farmers have shown them, giving extracts from two of our most prominent agricultural journals, plainly pointing out that the preponderence of the Short-horns over the Herefords could only be due to their inherent superiority.

It was not our purpose in giving these extracts to go into a lengthy comparison of the two breeds, but only to note the sentiment of the day on the subject. The fight on their respective merits has been fought long ago, and a decision made up which is not likely to be reversed, attempts to reopen it being goodnaturedly regarded by those familiar with such topics as mild essays in Quixotism; but it has been thought necessary in this quarter to endeavor to break the force of our articles, to set up claims for the Herefords not only as the quickest feeders, the producers of the best beef, and the takers of the most prizes at the English shows, but even to preposterously hold them up as a race of heavy milkers.

This leads us, contrary to what was our intention, to return now to the subject. The Herefords, according to our estimate of their value, are not without moderate merits; and with them, as with native cattle, grades, or cross-breeds, an occasional individual may be found of exceptional quality as a milker, or as a quick feeder; but as a rule they are a large, heavy race, maturing slowly, inferior in their milk supply, making good oxen, giving beef of fair quality, but coming second-class to Short-horns in taking on flesh and quick maturity, (although there are some who do not hesitate to say that the later Herefords have been improved by a cross-in of

Short-Horn blood,) and to the Devons in quickness of motion as oxen, and in the texture and flavor of the beef produced. In England they are kept up largely from a feeling of local pride. To the great cattle-producing section in the West and Southwest of our own country, some bulls of the breed will from time to time be sold just as Polled bulls are sold, and just as Scots bulls would be were there any available in this country, but there, as in every other quarter, the Short-horn will remain, as it has even since its introduction, and when the two breeds were far more nearly on a level, the favorite and the preponderating race for grazing lands.

So in our own section a bull may be occasionally sold, or given away, and some one may think it pays to keep a herd which gains some cheap newspaper fame; but in Virginia, and Maryland, and Pennsylvania, where farmers want to raise beef, they will buy the Short-horn, or, to produce milk, the Ayrshire, and the preponderancy of the symmetrical Short-horns over the ungainly Herefords, which a contemporary estimates as 100 to 1, will be likely to continue, simply because it is a condition of things founded in the intrinsic merits of the two respective breeds, as demonstrated by that best of tests—experience.

We subjoin to this, as confirmatory of what has heretofore appeared in our pages, some extracts from a late communication to the *National Live Stock Journal*, of Mr. Pliny Nichols, an old breeder and stock man:

Now, the standing of the Herefords and Short-horns, respectively, as brought out by that show, [the Smithfield Fat Stock Show.] is easily told. The Herefords started in well some eighty years ago, and did well for a time, but their credit commenced to wane long ago, and has steadily been waning, until it has literally gone *out*, Herefords taking the champion cup for fat ox or steer only twice, and for cow or heifer only once, in the last sixteen years,—they being beaten by Short-horns, Devons, and Scots, and tied by the cross breeds, so that in order to come in fourth at that show, the Hereford would have to cast lots with the *cross breeds*. On the other hand, the Short-horns, making a poor start, have steadily and rapidly been growing in favor, until they are now head and shoulders above every other breed at that show, beating the Herefords as three to one, in the show for best ox or steer, and as twelve to one for best cow or heifer.

Youatt and Allen give the Herefords a very good record as beef-producing animals; but a few extracts from these authors will show how they regard the relative merits of the Hereford and Short-horn in that respect. Youatt says:

"They (the Short-horns) are willing to work; "but surely cattle which, as the preceding account "proves, will go as profitably to the butcher at

"two years as any other breed at three, and as "many even at four, ought never to be placed in "the yoke."

Mr. Allen says:

"Nothing of the bovine race ever has, or probably ever will, equal the Short-horn in early maturity, rapid accumulation of flesh, fulness and ripeness of points, according to the amount of food they consume, and assimilating that food to the most profitable use."

Citations from those and other good authorities might be made to an indefinite extent, showing the superiority of the Short-horn over the Hereford as a beef-producing animal, while as a milk-producer the Hereford bears no comparison at all with the Short-horn. But these will be sufficient to account for the Hereford making no headway wherever he comes in competition with the Short-horn. It is not because the Hereford is not a good grazer and good beef animal that he does not succeed, but because the Short-horn is a *better* animal in that respect, and can also be relied on as a *milk-producer*, and as transmitting, when crossed with other stock, these essential qualities more certainly than any other known breed. The Hereford has been tried over and over again in this country, and generally with the same result, viz: bred awhile and then got rid of, or converted into Short-horns, by the use of good Short-horn bulls.

The history of the Short-horn has been very different; wherever they have been introduced they have stayed, proving to be what the people wanted, and creating a demand for more of the same kind. Now, although the Hereford had an even start with the Short-horn, in 1817, and has from time to time been imported in lots as high as twenty at a time, yet it would be safe to say, that any one of the Short-horn cows imported in 1817 could count *more* and *better* descendants than all the Herefords put together that have ever been imported to this country. Mr. Miller thinks the Herefords have not succeeded because breeders do not know what they need, or, that knowing, they have not the good sense and independence to use a good thing when they have proved it. But a more reasonable conclusion is, that they know pretty well what they *do not* want after trying the Hereford awhile.

Of the qualities of Herefords as milkers the following high authority is quoted. Youatt says of them:

They are far worse milkers than the Devons. This is so generally acknowledged, that while there are many dairies of Devon cows in various parts of the country a dairy of Herefords is rarely to be found.

Mr. Allen, in "American Cattle," says:

We have seen a dozen of them (Herefords) milked through three or four successive seasons, and the yields were such as would be unsatisfactory to a modern dairyman. Now and then a fair milker turned up, but taken together they were less than ordinary for the season.

And from a prominent English agricultural journal we quote the testimony of the Rev. Mr. Beavor, who lives in the midst of Herefordshire, and who, after expressing surprise that the ques-

tion of comparing Short-horns and Herefords should have come up again in America after having been so long settled in England, shows that even local feeling is so far yielding to the inevitable that the Short-horns are making their way in the very home of the Herefords. He says:

"Lots of fine Short-horn cattle of ancient lineage rear their own offspring most successfully, and as regards comparison of the Short-horn with the Hereford, how is it that I myself, living actually in the county of the white-faces, dispose continually to my farming neighbors of bull calves to cross with their Hereford herds, as I am uniformly told, because '*it gives them so much more milk!*' I have just sold a pair of Short-horn heifers to a Herefordshire squire who lately owned a capital native herd, because his new bailiff has persuaded him to 'go in' for a 'dairy!' And another rich neighbor—one of the staunchest to ridicule my pedigree Short-horn stock—is obliged to import his cows for the house from Gloucester! For miles around me the white, red and roan Short-horn dispute the pasture with the pale-face. And this is in Herefordshire itself!"

I will say no more than that one of the most successful of Hereford breeders published in the *Agricultural Gazette*, the other day, if a man could afford it, the best thing to do was to go in for the blue-blood Shorthorns. How on earth came he to such a conclusion? I admire the Hereford cattle much, and, had I been a native, might have taken pride in keeping up the sort. I should certainly have aimed at *more milk and a year's earlier ripening*. It is here the cosmopolitan Short-horns beat them. Moreover, the bald-faced Hereford does not do, as a rule, to cross with—the issue is often so ungainly and plain; whereas the Short-horn rather improves the character of all ordinary cattle that it may cross with. Mr. Stratton's Short-horn bull Protector has beaten, in competition, I believe, all the most famous Hereford bulls in existence."

Proposed Show and Trial of Shepherd Dogs.

Mr. J. Addison Smith, President of the Baltimore Kennel Club, which held so successful a bench show of dogs in this city last winter, informs us that he is in correspondence with several gentlemen interested in sheep-raising in this state and Virginia as to the practicability of a public test and display, at some convenient and accessible point, of Shepherd dogs, similar to those frequently made in Europe at the fairs and agricultural shows.

Such an exhibition would not only possess great interest, but it would draw together a large number of spectators; and directed by so energetic and capable a manager as Mr. Smith, it would prove, we believe, a success in every way.

With the awakening interest in sheep husbandry, the necessity grows that some effective means be provided for the protection of flocks against worthless dogs. A well-trained dog not only gives this defense, but he diminishes very materially the expense of keeping sheep.

The supply of these dogs appears to be on the increase in this country, and a display of representatives of the several breeds, with trials of their individual intelligence and skill, illustrating the method of their work, could not but be instructive and interesting, and tend also to largely increase the use of, and inquiry for, such animals. We are informed that it is likely no trouble would be had in getting a sufficient number of well-broken dogs together for such an exhibition.

Work for the Month—August.

Sowing Rye.—Some farmers who pasture their rye in fall and spring prefer to sow during the latter of this month, whilst others defer sowing until September. There is little danger of its falling from growing too rank, because in the spring it may be eaten down by your sheep and calves, for whom it affords the best sort of an early bite. The land ought to be deeply plowed and thoroughly pulverized by the harrow. The seed, if sown broadcast, should be harrowed in and then rolled. Unless your land is in extra condition you cannot expect a large crop without manure, and although it is true that rye will produce a fair return where wheat will not, it is true economy to put on your land a suitable dressing of barn-yard manure, compost, or apply some good mineral fertilizer, like a super-phosphate, a mixture of bone-dust, ashes and salt, in such proportions and quantities as you may find convenient. About five pecks of seed is sufficient for an acre, though more is used where the crop is to be cut for feeding green, in which case, too, earlier seeding is practiced than when the grain is to be saved.

Setting Meadows.—For timothy to do its best, only a good loamy soil should be chosen, it being a grass which draws heavily on the nutritive qualities held in the land. A soil in which clay predominates is best suited to the plant, and on light porous sandy and gravelly soils it does not succeed; but very stiff clay must be carefully prepared by the plow, the harrow and the roller. Subsoiling, where it can be performed, is an advantage; but if this cannot be done, let the plow go deep, and then harrow, cross-harrow, and roll until all the clods and lumps are broken down and the finest possible tilth secured.

There is no danger of excessive manuring, and especially that such meadows are expected to be kept for several years, the annual crops making heavy drafts upon the most costly elements which go to make up the food of plants. Barn-yard and stable manures, bone-dust and super-phosphates, may all be used indifferently according to disposition and ability, but the manure

ought to be well rotted, and composts thoroughly mixed and decomposed. Where timothy is sown alone not less than a peck to the acre should be used, and it should be lightly harrowed in and rolled. Where hay is marketed, unmixed timothy is best to be sown; where intended for home use the addition of half-bushel of red-top to the peck of timothy seed for an acre is advised.

Permanent Pastures.—These, too, should be well and deeply plowed, harrowed and rolled, a sufficiency of good manure applied, and the following mixture of seed sown to the acre: 8 lbs. Timothy, $\frac{1}{2}$ bushel Kentucky Blue Grass, $\frac{1}{2}$ bushel Orchard Grass, 1 peck Red Top and 1 quart sweet-scented Vernal Grass, the whole thoroughly mixed, and sowed in two directions, lightly harrowed or brushed in and rolled. In the spring Red Clover seed should be sown at the rate of a bushel to eight acres, and the ground again rolled.

Plowing for Wheat.—Deep plowing, where the soil admits of it, is a great protection against winter-killing, the breaking up of the hard-pan allowing the water to escape from contact with the roots, and avoids the danger of alternate thawing and freezing, and this work is now of paramount importance, to be gotten at and finished as soon as can be. As to the time and method of applying manures, there are, as our readers know, very opposing opinions—it being thought best by some to plow under, whilst others apply on the surface. If the former plan is followed, the manure should not be turned in deep.

Buckwheat.—If sown at once, may escape the frosts, and it may be sown at any time this month for turning under for green manure.

Tobacco.—Until the leaves interfere, the cultivators should be kept going, and if necessary another hoeing given, that the crop may be laid by clean of weeds and grass.

Turnips.—The flat kinds may be sown up to the 20th. A good dressing of super-phosphate makes them start off quickly. See on another page an excellent paper on the subject. Ruta-bagas may make a crop if sown at once on freshly-worked ground, the weather favoring.

Grass Lands.—This is a favorable time to top-dress these with fine and well-rotted composts, manures, or to harrow in a dose of super-phosphate, or a mixture of bone dust, ashes and salt. If a renovating mixture of timothy, orchard grass, red top and blue grass be sown on pasture lands and harrowed in and rolled, the effect will soon be seen.

Heavy Fleeces.

Gen. John S. Goe, Brownsville, Pa., sends us a statement of the weight of the fleeces of his Merino flock, shorn the last days of May and first of June. The fleeces were of one year's growth. One of the rams clipped 35 lbs. 8 ozs., another 32 lbs., and the others from 16 lbs. 4 ozs. to 31 lbs. 8 ozs. The heaviest fleece from an ewe was 27 lbs., and others ran from 12 to 21 lbs.

Poultry Yard.

Poultry as a Source of Profit.

By G. O. Brown, Montue Poultry Yards, Brooklandville, Md.

While many enterprising farmers seem to fully appreciate the important value of breeding pure-bred cattle, swine and sheep, they appear to ignore the fact that pure-bred poultry is as much an improvement upon the mongrel stock (which is too often found to comprise the farmer's poultry stock) as any of the choice breeds of sheep or cattle are over the common or inferior stock. Mowbray observes that in France "poultry forms an important part in the live stock of the farmer, and the poultry-yards supply more animal food to the great mass of the community than the butchers' shops." Too little attention in America by farmers is given to their poultry. Yet for the amount invested, no live stock will return a better per cent. in profit than poultry if it is properly cared for. Proper attention need not be construed into a great amount of vexatious labor; the same care and pride in seeing them thrive as is usually devoted to your Jerseys, Southdowns, and other pure-bred stock, is all that is necessary. System, order, regularity in feeding, and cleanliness, are the open sesame to profit in breeding any kind of stock. If farmers will only take into consideration the immense numbers of flies, insects, grubs, beetles, worms, larva, &c., that the fowls destroy, they will readily discover "the good they are." An experience of twelve years breeding pure-bred fowls, has shown me from actual experiment that common or mongrel stock, fed the same as my pure-breeds, and the same number of cocks and hens kept in yards of equal size, did not yield on an average quite half the number of eggs the pure-breeds did; whilst the chicks of the latter were much superior in size to the common ones of the same age. This fact was tested by setting eggs of the common and pure-breeds under one hen, when the chicks of the latter grew away from the former—the difference being noted in a week's time. This season, from 7 Brown Leghorn hens, confined in a yard 4 by 8 feet, with an unlimited range two days each week, from February 29 to July 1, the 7 hens laid 668 eggs, being an average of over five daily. And I may add they are yet doing about the same, (July 23.) I hardly think twice the number of common hens could be forced to do this, with an unlimited range all the time. Had these Leghorns had a range at will every day, I think the average would have been at least 6 $\frac{1}{2}$ per day. I could give numerous illustrations that would show the balance-sheet greatly in favor of the pure-breeds.

A couple of years ago I sold to a gentleman some Brahma and Houdan eggs; last year he crossed the Brahmans and Houdans, which produced a rapid-growing chick, the pullets laying at six months. I am informed by him that he has a regular customer for all the eggs his hens lay, who pays three cents more than whatever the market price happens to be, because the eggs are so "large and excellent."

This year I crossed a white Leghorn cock on a Dominique hen,—the result being chicks with

fine rose combs, brilliant yellow legs, and spotless white plumage. They matured very rapidly, and the pullets commenced laying when five months old, one now desiring to incubate.

The Hon. Mrs. Arbuthnot of England, a lady who in four years was awarded over 460 prizes on her poultry at exhibition. She personally superintends the management of 40 different yards, from which over 1,000 chicks were annually hatched. She says: "I began to breed poultry for amusement only, then for exhibition, and lastly, was glad to take the trouble to make it pay, and do not like my poultry-yard less because it is not a loss. It is impossible to imagine any occupation more suited to a lady living in the country, than that of poultry-rearing. If she has any superfluous affection to bestow, let it be on her chicken kind, and it will be returned cent per cent. Are you a lover of nature? come with me and view, with delighted gaze, her chosen dyes. Are you utilitarian? rejoice in such an increase of the people's food. Are you a philanthropist? be grateful that yours has been the privilege to afford a *possible* pleasure to the poor man, to whom so many are *impossible*. Such we often find fond of poultry—no mean judges of it, and frequently successful in exhibition. A poor man's pleasure in victory is, at least, as great as that of his richer brother. Let him, then, have the field whereon to fight for it. Encourage village poultry shows, not only by your patronage but also by your presence. A taste for such may save many from dissipation and much evil. No man can win poultry honors and haunt the tap-room too."

The above is certainly a worthy example for imitation. Bear in mind that if your poultry is not a source of profit, it is not their fault.

The Vivary.—No. 2.

Pigeons—Their Management, &c.

[Continued from page 294, July No. American Farmer.]

"The Psalmist once his prayer addressed—
‘Dove, could I thy pinions borrow,
My soul would flee, and be at rest,
Far from the earth's oppressing sorrow.’"
—Moir.

In answer to third query of the correspondents on page 92 current volume [viz: "Can pigeons be kept—different kinds—without mixing if allowed to be kept in loft together?"—Emma C.] admits of two solutions—"yes," and "no." Yes, if the birds are first properly mated, and given regular care and attention; and no, if, as *fancy birds*, they are allowed to act and care for themselves, as is usually done with the more *common kinds*. In fact, very different precautions and very much greater care are required for the successful rearing of *fancy pigeons* than are necessary in the care of the common kinds; for to keep up a choice breed the birds must be mated properly, or the different varieties of Tumblers, Pouters, Carriers, Runts, Fantails, Jacobines, etc., will contract imprudent and miscellaneous marriages, to the great detriment of your stock, which will speedily deteriorate and become so mixed that it will puzzle you to decide the question to what variety each of the

young birds belong. All this, however, can be managed with a little ingenuity and without much labor or wearisome attention.

It is therefore presumable, Messrs. Editors, that your fair correspondent would hardly incur the trouble to procure the "different kinds" if it is not intended to afford them such attention: to facilitate which a hint or two from an "*old fancier*" (though of middle age in years) may enable her, with attention and judicious matching or mating, to become as expert in keeping *a strain of birds up to a feather* as will tickle a "pigeon fancy" to eye, or make a "*native Hollander*" *uplozen* (to leap up) with ecstasy. To be successful with these birds a "pigeon fancy" must act upon a hint taken from "Lord Brook's Alaham:"

"In care they live, and must for many care,
And such the best and greatest ever are."

Just here permit a moment's digression upon a habit observed in these birds, in which the fidelity of pigeons is denied—

"Cooing sits the lonely dove,
Calling home her absent love." —Clark.

Pigeons are in general monogamous—that is to say, live together in pairs; and when a male and female once form an attachment, the union, usually faithful, generally lasts for years, and sometimes during their lives. From time immemorial pigeons have been considered the emblems of impassioned love and faithful attachment; the fidelity of the dove to its mate has been sung by almost every poet, and indeed is proverbial. Their vaunted preëminence in these points is at the least questionable. For instance, the pairing of pigeons is a practice so strictly adhered to by them that if the number of male birds in a dove-cot is less than that of the females, the supernumerary hens will pair with each other, and set up an establishment for themselves. The unmated hens that thus enter into partnership will go through all the ceremonies of pairing, make a nest, lay two eggs each, sit alternately and carefully, and, if they are members of a large flock, very often rear young. The frequent occurrence of this circumstance proves that the conjugal fidelity of the male birds at least has been somewhat exaggerated. If the males are in excess, they will make an excursive tour in search of a mate, and either remain with her at her residence, or, which is just as frequently the case, will bring the lady with them to their own home.

RE-MATING.—When a hen pigeon has the misfortune to lose her mate by death or accident, she is certainly uncomfortable for a while, but not inconsolable. She does not go pining on in solitude for long, refusing to be comforted; when she finds that her partner is forever gone, she resigns herself to her fate, and takes up with another; in doing so, she generally goes off and is lost to her owner, unless a husband be quickly (about the third day) supplied, whom, however, she would probably desert, were her first love, the original mate, by some fortunate chance to make his reappearance; but if the male is the survivor, he will, as remarked before, soon provide himself a mate from some other quarter, though not always perhaps to the taste of his owner.

MATING-CAGES.—It is a great advantage to pigeon-fanciers, and enables them to keep several different kinds in the same loft without their intermixing, that when a pair of young pigeons have once formed a mutual attachment and reared young together, the union lasts for life. So long as they both continue in good health, they will go on producing a pure-bred offspring together, even though pigeons of other breeds are their daily companions; sometimes, however, one of the pair may be lost or killed, and it will be desirable to provide the widowed bird with a suitable mate. Sometimes a fancier may chance to purchase a single bird of unusual value or beauty and may wish to unite it with some one which they already have in possession; and it is necessary therefore—as well as to keep up a choice breed—that the birds be made to mate as we wish them; as this contingency will always be occurring, an indispensable requisite to every well-managed pigeon-soft will be matching-places or mating-cages.

It is better these cages should not be in the loft itself, but in some apartment contiguous to it, that the birds to be coupled may see no other individual of their own species but themselves.

If either one or both of the birds has to be divorced from a former mate, that mate or mates must be killed or sent away beyond the power of return, otherwise they will be very apt to go back to their first love, causing the new union to be of short duration. The time which it takes to make pigeons transfer their affections to a strange mate varies considerably; sometimes they will pair in four-and-twenty hours, and commence building immediately afterwards, and sometimes they will fight and quarrel for several days together before coming to an understanding.

These coops or matching-places (generally a shelf or two boxes 12 to 18 inches square, and lathed in front,) should be placed close together, with a lath partition only between them, that they may see each other, and so contrived that they both eat and drink out of the same vessels, feeding them often with hemp-seed (be sparing of this,) which makes them salacious; and when you observe the hen to sweep her tail to the male, as she plays in the other pen, which is termed *shoving*, you may put her in to him, and they will soon be matched. But if you have only a single coop or box, always put the male in first for a few days, that he may be the master of the place especially if the hen be a virago, otherwise they will fight so much as perhaps may settle in them an absolute aversion forever after; but the male being master, will beat the hen, if refractory, into compliance.

As soon as the pigeons give proof that they are really mated, they may be removed to the dove-cot, to select a nest for themselves, or choose a nest for them, and inclose them in it for several days, by means of a slight lath railing, giving them an abundant supply of food and water during the time.

But for the length of this, we should like to have inserted a hint or two upon some of the varieties, with their further management, feeding, attracting to the dove-cot, profits, diseases, early history, etc., to treat which satisfactory would require several lengthy papers. But we cannot

forbear, Messrs Editors, if allowed the digression, to congratulate your fair correspondent upon introducing a topic peculiarly appropriate to female labor; its attraction, healthfulness, light labor, and profitable results, present advantageous Employment for Women, invalids, the aged and young, to take part in, as an occupation or a pastime.

Much has been written of the necessity for enlarging the sphere of useful employments for women, but it is seldom that their attention is devoted to the care of *Song Birds*, the breeding of Pigeons, and rearing of Rabbits, Fowls, etc., as a source of profit, though female taste runs naturally in the direction of these domestic pets. The most successful bird or fowl-keeper will usually be found in some of the ladies of the household, and as an occupation is consistent with their honor and delicacy.

Pigeon and Bird Attractions.—The rearing of Pigeons is one of the most innocent, and, to some, the most pleasant recreation in life; the sick, the well, the rich and the poor will be alike diverted from their aches and cares watching the members of the lively commonwealth in their amusing antics, flying, building, laying, hatching, feeding, etc. There are few, if any, places where Pigeons cannot be kept, especially the more common and hardy kinds, in town or in the country, on the roof of a lofty mansion, or in a spare room of an out-house, in the hay-loft over the stable, or the caddy under the roof, a shelf in the cow-shed, or a box or two under the eaves of the house, in short there is hardly any place under cover in which Pigeons will not sit, hatch and bring up their young. They increase in numbers even under the most disadvantageous circumstances, and with a very little care and attention they will prosper better than any other domestic pets.

Most sorts will handsomely repay the little care and food required by these prolific birds, who monthly complete the task of laying, hatching and rearing to maturity a pair of their offspring, who in turn will commence to mate and lay when five or six months old,—thus producing from half a dozen pair an incredible number in two or three years. It has been calculated that the product from one pair may, in the course of four years, increase to fifteen thousand.

Some of these birds are bred with such care that they will bring fabulous prices, ranging all along from three up to fifty dollars each, and even higher rates are known to have been paid. Pliny notes the value of a pair—probably Carrier Pigeons—among the Romans as worth four hundred denarii (about \$60.) The Carriers at the present day are worth from three to twenty dollars per pair in market, while many other varieties bring about the same rates, or even as high as fifty to one hundred dollars per pair for some extra Pouters, Tumblers, etc.

With industry and enterprise, what may not be accomplished if American women would only turn their attention to the care and management of some of the more useful varieties of the “vivary,” (a place where living creatures are kept,—as the aviary, poultry-yard, dove-cot, rabbit-warren, apiary, aquarium, and fish-culture,

animal parks, etc.,) as a source of profit for market, instead of giving it up to ignorant foreigners. A few hundred dollars would make a good beginning with some of them; and those who do not have so much at their disposal, may get their friends to advance it.

There are establishments in most of the large cities of the United States for the sale of birds, pigeons, rabbits, dogs, cats, squirrels, gold-fish, etc., whose proprietors import, as well as raise them of imported birds; the most are from Germany, where the favorite pet bird has long been the Canary. In the South the Mocking Bird is common, and often seen caged, but few of our most attractive birds (the Robin, Red Bird, Indigo Bird, Yellow Bird, and many others, for want of knowledge as to their rearing and management,) bear domestication. Their wild, free nature has heretofore unfitted them for it.

From ten dollars to one hundred and even more has been refused for favorite Mocking Birds, Robins, Red Birds, etc.; while the Canary, a most prolific bird, sells for \$1 to \$5 each. They can raise from two to five nests in the year, and of four or five eggs each time. A room appropriated as an Aviary can be made one of the most useful and pleasing objects to engage the attention of the invalid, or aged, while, as Olivier De Serres remarks,—“no man ever need have an ill-provisioned house, if there be but attached to it a dove-cot, warren, and fish-pond,—wherein meat may be found as ready at hand as if it were stored in a larder. He may nourish his family in noble style and give good cheer to his friends, without putting his hand into pocket.” Certainly, in a country home, if properly managed, they may be made constantly to supply a quantity of fresh provisions, particularly valuable at the season when animal food is so difficult to preserve or obtain in any inviting condition; then a few minutes suffice to prepare a dainty meal for chance droppers in or an unexpected guest; and who will decline the appetizing allurements of a “Cold Pigeon Pie,” or a Hot Rabbit one; “Pigeon à la Crapaudine,” (a broiled Squab) or a “Smothered Rabbit,” “Pigeons en papillotes” (in curlpapers), or a “Curried Rabbit,” a “gibelotte or fricassée of Pigeons,” or a “Cold Rabbit Pate,” etc., (the receipts for all which, with many other toothsome dishes, can be had,) while the value of feathers every housewife knows, and the manure as a powerful guano for the garden’s choice plants, onions, melons, etc. In some such work as this, is found a little world of health and productive comforts, ever new and interesting,—the solid basement in the construction of the true “*otium cum dignitate*” (leisure and respect) of life.

Washington, D. C., 1878. JOHN H. KING.

Fattening Turkeys.

The best way to fatten turkeys is to keep them growing rapidly from the start by feeding liberally, often and at regular intervals. Let them have their liberty, so they can get their accustomed feed of bugs, worms and grass, and give them, morning and night, liberal feeds of mush, made by boiling or scalding coarse corn-meal. Keep, also, a trough in some convenient place, in the shade, in which put daily supplies of thick (clabbered) milk.—*Poultry World*.

Horticulture.

Potomac Fruit-Growers.

JULY MEETING.

The specimen tables were well supplied with seasonable fruit. Of them we noticed Prince's Early, Beatrice, Hungerford, Sweet Bough, Jucunda Straw, Howett, Astrachan Red, River Pea, June and Edward's Apples; Amsden and Trotter Peaches; Philadelphia and other Raspberries; Wild Goose Plums, etc., etc.

Dr. Howland read a paper on

What we don't know about Fruit-growing.

NOTICE 1. Some things which we don't know, that we can know.

2. Which neither we nor others know, but which must be known before fruit-growing will always be a success.

Thousands of tree and vine planters have spent thousands of dollars and made a failure of fruit-growing, because they were ignorant of the best and most successful varieties; when this dear-bought experience might have been avoided, and the best methods and varieties have been learned by consulting intelligent fruit-growers and nurserymen.

Many don't know how to keep their trees from the depredations of insects, when the “how” may be learned from any standard work on fruit-growing.

That to grow trees and fruit the orchards should be cultivated and fertilized in a similar manner as a field of corn, from which a full crop would be gathered.

How to pick and market fruits in the manner and condition to realize the most money; which knowledge could be learned from intelligent fruit-shippers and commission merchants.

On the second head I remark :

We don't know how to grow in the Potomac region such fruits as Esopus Spitzenerbergs and R. I. Grinnings, etc., when they are grown so successfully in other localities.

Why certain fruits can be grown successfully in some localities and not in others, or why some varieties are a success for a number of years and then fail, and afterwards are grown successfully.

The cause or remedy of many of the diseases and blights that destroy our trees, vines and fruits :

Examples.—A friend settled some 25 years since in the eastern part of the District of Columbia, and planted a vineyard of Catawba grapes. The vines produced abundantly for many years, and from which he realized a small fortune; when, without any apparent cause, the vines midewed and grapes rotted, both on the old and young wood. This continuing for several years, the vineyard was abandoned.

Within a mile of Mt. Vernon Springs during the last 6 years I have set out over 3,000 Apricot trees, and the blight has nearly destroyed them all. But not like my Catawba friend after he had realized his fortune,—for instead of a probable income of \$5,000 a year, I am many thousands of dollars out of pocket.

With all the investigations with the microscope and the experiments of fruit-growers, we are as much in the dark as ever as to the cause and remedy of blight.

The depredations of many insects also are still beyond our control, and every failure should be a warning to others not to follow the same path. We should investigate every unknown cause, and give the world the benefit of our failures as well as our successes.

Millions of dollars might be saved to the United States if original investigators were employed to discover the unknown cause and remedy; but for the investigators of all this great and widespread destruction, our agricultural department employs one entomologist and one microscopist.

If ten plantations of fruits should be made in different parts of the country, and ten microscopists be employed to investigate the causes of blight, etc., millions of dollars would be saved to the country; and a similar course should be pursued in regard to the cholera in hogs and fowls, from which cause the State of Ohio alone, during the last year, lost some millions of dollars.

In fruit-growing many fail; but more will succeed, and the balance-sheet will be largely in favor of the persevering. The more we know of the laws of nature, and live and work according to them, the greater will be our success and happiness.

G. F. N.

Washington, D. C., July, 1878.

Figs out of Doors.

Our readers will remember that Mr. Wm. Fowler, the experienced and capable gardener so long in charge of Clifton Gardens, the future site of the Johns Hopkins University, gave them some months ago an account of his system of managing the fig out of doors, so as to secure abundant crops of this fine fruit.

We lately had the opportunity of looking at his fig-trees and found them in thriving condition and in full bearing. The first crop which ripened had already been removed and marketed, and the succeeding crops on the same bushes were growing rapidly under the tropical heat of the July suns—this tree being one which seems to rejoice in heat and even considerable drought.

Mr. Fowler informs us that he has no difficulty in selling the fruit at profitable prices to confectioners and others.

The gardens and glass-houses at Clifton are now being run by Mr. Fowler for his own account, under a lease from the University, and he has a large collection of fine things in the fruit and flower line which he will put on the market. Some new Ageratum, which are bedded out and which give promise of great usefulness as winter bloomers, are conspicuous for their large and compact heads and pure white colors, whilst others are of rosy pink.

Cranberries pounded fine in the raw state are excellent as a poultice to allay inflammation of the skin. They are specially adapted for this purpose in cases of erysipelas.

Strawberries, New and Old—Sharpless' Seedling.

Mr. W. C. Barry gives in the *Country Gentleman* a report of several new sorts, as well as of the older varieties, on the grounds of Messrs. Ellwanger & Barry, at Rochester, N. Y. To Sharpless' Seedling, a figure of which is given below, he gives the highest praise, and the editor endorses his good opinion of that berry, the engraving not representing, as he says, the largest size, but showing the form of many well-grown specimens, whilst in quality it is decidedly superior to the Charles Downing. Mr. Barry says:

Of all the varieties now grown for market, Wilson's Albany still seems to be the favorite. It thrives in all soils, produces abundantly, and ships well. For home markets, Monarch of the West is becoming very popular. The fruit is large, handsome, of fair quality, and the plants vigorous and prolific. It always commands a good price. Cumberland Triumph, one of the more recently introduced varieties, promises also to be valuable for this purpose. The berry is large, roundish conical, perfectly formed, of a beautiful light scarlet color, and of good quality. It is a vigorous grower, and produces abundantly. This is the second season that it has borne with us, and it promises so well that we think cultivators generally should give it a trial. Captain Jack, another of the newer sorts, is a berry of moderate size, good quality, and produces great crops. We think in this respect it excels all other varieties. The fruit is better flavored than the Cumberland Triumph, and firmer, but not so large or so handsome. It will undoubtedly prove a valuable market berry. Springdale, introduced about the same time as the above, neither grows nor bears well with us. Star of the West, which was sent out with such high recommendations, does not succeed at all. The same may be said of Sterling and Prouty's Seedling. Kentucky and Barnes' Mammoth bear abundantly, but the fruit is excessively acid. Duchesse, lately introduced, is valuable on account of its earliness, succeeding Nicancor. The berry is large, handsome and good, and the plant prolific. Crescent Seedling, quite new, has borne with us for the first time, and looks well. The fruit is large, moderately firm, and of excellent quality.—In this respect better than the average strawberry. We have every reason to think well of this variety. Great American has not proved to be as great as was expected. The berries, however, are large, of a rich crimson color, firm, and of fair quality. The plant has the same habit of growth as the well-known Agriculturist. It will no doubt prove an acquisition, but we must give it further trial before expressing a decided opinion for or against it. Seth Boyden sustains its reputation as a choice variety. It bears abundantly, and the fruit is of good flavor. Col. Cheney is handsome, but too soft. Peak's Emperor is a beautiful berry, and first-rate in flavor, though not so prolific as it ought to be. It is a fine garden sort. Chas. Downing must still be regarded as one of the

standard varieties. Lennig's White continues to be the only large, fine, light-colored strawberry we have. The plant is hardy, vigorous, productive, and merits a place in every collection. Nicanor never fails; ripening with the first, and lasting the entire season. It is a most abundant bearer, and the fruit is of good size and quality. Philadelphia, introduced several years ago, has been so fine this season that it seems hardly just to overlook it. Every garden collection should include it. Jucunda and Triomphe de Gand, both well known and popular, are two of the best kinds, but require high culture; but this every strawberry should receive. Triomphe de Gand is the best variety now grown for the table.

Among the new kinds, we think nothing can compare with Sharpless' Seedling. The fruit is large to very large, an average specimen measuring one and one-half inches in diameter.—



Sharpless' Seedling Strawberry. A large, dark red, oblong strawberry, with a green stem and a few small leaves. The surface is covered with small, light-colored spots. The drawing is done in a detailed, scientific style.

A large berry, exhibited recently at the Nurserymen's Convention in Rochester weighed 1 7-16 ounces, and measured 7 inches in circumference. In form it is generally oblong, narrowing to the apex, and irregular and flattened. Color clear bright red, with a shining surface; flesh firm, sweet, with a delicate aroma. In quality it ranks next to Triomphe de Gand. The plant is very

have all the little conveniences and appliances applicable to their culture and safe keeping, such as a south window fully exposed to the sun, a window-garden being a box lined with zinc arranged under the window in which the plants are to be placed, and above all, a room in which the atmosphere does not fall below 40° or rise above 70°, you will regret before the winter is half gone that you ever attempted to keep "the troublesome things." In the first place the south window is absolutely necessary, and without the window box you will always have a great litter when you water "the little darlings." And if the atmosphere in the room should ever fall below freezing-point, in nine cases out of ten you would wake up some cold morning to find them all frozen, including your especial favorite, "that darling heliotrope, that you knew was the sweetest in the world." And you thereupon "make up your mind" that it is "no use for you to try to grow greenhouse plants," and therefore you quit trying.

Or in the opposite case, the atmosphere will rise to too high a temperature, and the plants will not thrive; they grow up spindly, and drop all their leaves, caused by myriads of red spiders taking up their abode on them, and so good-by to the plants, for said red spiders are so very small that the inexperienced would never know they were killing their pets, and so in the end would come to the same conclusion mentioned above.

But I commenced this article with the express purpose of telling the readers of the *Farmer* how I kept my plants last winter, by means of a cold-pit, a very cheap and also safe plan; and I will now endeavor to make my meaning as plain as possible, and to be brief at the same time.

Select an elevated spot, with a full southern exposure,—one upon which the rays of the sun can fall at all hours. Dig a pit the size of a hot-bed sash, i. e. 3 by 6 feet. The depth must be governed by the size of the plants; as a general rule four feet wide will be sufficient. Make a frame long enough for the sash to fit on, precisely on the same plan as a hot-bed frame, and place this over the pit already dug, giving it a slight incline, one and a half feet at the back and six inches in front, being a slope of one foot; this will be sufficient to catch the rays of the sun, and to carry off any water that falls on the pit.

The pit must be planked up from the bottom, to keep the soil from falling in, and also place planks on the bottom for the plants to rest on, and more to keep the water from rising within the pit. If you have bricks convenient, so much the better, as you can brick it up, and thereby make it permanent; but this is by no means necessary to the safe-keeping of the plants.

The earth should be banked up against the back or north end of the pit, to break off the northern wind.

Immediately on the outside of the pit should be dug trenches about a foot wide and deep, which in cold weather should be filled with fresh horse-manure; holes should be made in the cold-pit frame to admit the heat arising from the manure into the pit, thus acting on the principle of a hot bed. The manure should be removed once a month and fresh put in its place.

Keeping Plants Over Winter.

There are numbers of lovers of flowers, who would take great pleasure in growing greenhouse plants, if they could with any certainty keep them over winter. Keeping plants in the house is a very uncertain and troublesome way, apart from the litter thereby caused, and a safe and cheap way by which they would be wintered would be acceptable to all lovers of Flora who have not the means required to build a greenhouse.

As I said above, keeping plants in the house is a very unsatisfactory way, and no matter how much you admire them in summer, unless you

This plan is for those who can obtain the manure without trouble or expense, and is by all odds the safest, but it may be done away with, and mats or a covering of straw substituted.

The sash must be a glazed one, and must be kept closed in cold or rainy weather.

Admit air on all occasions when it can be safely done, by raising the sash a few inches, and except the weather is very cold it can be done nearly every day. If a cold spell or snow storm sets in, cover the pit securely with a thick covering of straw or any thing convenient.

Water the plants sparingly, and remember particularly that this pit is for *wintering* plants, *not* for *blooming* them, although you will be rewarded by a few blooms during the dreary days to follow your putting them within their winter quarters.

Keep a vigilant lookout for green-fly, which first will make its appearance in great numbers, and will show themselves on Verbenas the first thing. Use efficient remedies to remove them.

Place the plants in the pit before cold weather sets in. As spring advances admit more and more air into the pit, and by the middle of April, in this latitude, keep it off all day.

Remove the plants from the pit about the 1st of May, not before, and you will be surprised and very much pleased to see how fresh and healthy they look.

Apart from the use the pit is intended for, it will be a convenient and excellent way by which to start flower-seed for early flowering, which may be planted from the 1st of March until the last of April, after which they may be sown in boxes out of doors.

W. G. IVY.

Warwick Co., Va., July 19th, 1878.

Floriculture, &c—August, 1878

By W. D. BRACKENBRIDGE, Florist and Nurseryman, Govanstown, Baltimore county, Md.

Lawn and Pleasure Grounds.

We often omit many features in planning and laying out our pleasure grounds which are of an attractive nature, and which might easily be brought into play—and the more conveniently so, if taken into consideration at the conception of the design.

The kind of features we have in our mind's eye frequently exist in a natural state, as where the grounds are extensive it may be in groups of trees interspersed with the bushes and fringed with vines; such groups may often want curtailing or enlarging, just as scene and other circumstances may admit or suggest themselves to the designer; always bearing in mind, that a very little injudicious cutting and carving into a group embracing natural beauties, may easily destroy its whole character.

On the other hand, many of our native trees are extremely beautiful as solitary specimens on a lawn,—as witness the beach, the walnut and the various kinds of oaks, low-branched and bushy; and should a large rock or boulder exist above the earth's surface, this can also be used to advantage. But the most attractive feature, if it can be had as an adjunct to a lawn, is a shady dell, embracing a small stream of water running through it. In such a place a refreshing coolness

in warm weather comes over you, while the ear is greeted by the warbling of birds overhead and the rippling of the brook below.

We do not recommend artificial rock-work on a lawn; but if people will have such, then the fabric should be constructed of large irregular faced blocks, so as to secure deep recesses, in which plants and bushes can receive shade and moisture. The most of our rock-work are failures, owing to there being too many rocks and too little earth used in their construction, requiring a fresh replanting with new plants yearly; whereas in a properly constructed rock-work, the plants should be of permanent kind, rooting deeply into the mass, and hardy enough to withstand severe frosts. A rocky alcove in some shady place where water can fall in at the upper end, pass down the centre and then dilate into a small pond, in which Nymphaeas and Pontederias could be grown, would be a nice thing to have; in such a locality can be found a hundred suitable spots where our numerous kinds of graceful ferns would flourish admirably.

Ponds on lawns—except where a strong head of pure water is passed into them daily—are mere breeders of mosquitoes and other pests, and as a feature in a small place therefore not desirable.

Seats under trees and arbors covered with flowering vines rank among the desiderata of all homesteads making any pretensions to the comforts of life; while straight avenues of trees where the extent of the domain will admit are desirable; such avenues should start from and lead to definite objects—say from the dwelling to some arbor, bench or plant conservatory.

It sometimes happens that the top of some old tree on the premises will fall into a state of decay; such a tree by a little care can be made an object of much beauty by planting at its base varieties of the English and Irish Ivies, and in order to cover the top quickly, plants of the Virginia Creeper and its near ally, Ampelopsis Veitchii, the foliage of both becoming beautifully tinted with crimson in the fall.

The Celastrus scandens or Staff-vine is a good climber and its orange berries hang suspended from the branches like coral clusters until such time as severe frosts set in.

Of late years there have been introduced into our gardens a great variety of handsome Evergreens, and among these none of them excel the various kinds of Retinosporas from Japan, for grace in their general outline of growth and neatness of foliage; the number of varieties we have proved to be quite hardy here amount to about eight, and they all appear to stand our climate much better than their congeners from Oregon and California; by these we mean Libocedrus decurrens, Cupressus Lawsoniana and Thuja excelsa, all of which require nursing when young, that is they want the protection or shelter of some more robust Evergreen for a few years; while small plants of all the Retinosporas have stood our severest frosts for the past five years.

We are not satisfied that the large kinds of Pines and Abies from our northwest regions will succeed in giving satisfaction to the grower in our Middle States here. At least all the evidences we have had lead to that conclusion. It has been found also that near Baltimore the

Wellingtonia gigantea or Big-tree of California is short-lived. Ten years ago we knew some thrifty trees that had attained a height of eight to ten feet; but these are now all dead or sick, scalded we think during thunder-gusts in summer, at least we lost a number in that way, and at present do not know of a single specimen that is over four feet high; yet it is said that on the shores of northern lakes it stands well.

In both Ribbon and Carpet-bed planting, weekly attention should be given to the pinching back all high and straggling shoots, so as to prevent one line of color from blending with another, thereby keeping the lines and figures distinct as contemplated in the original design; even in mixed groups it is necessary sometimes to curb rank-growing plants, so as to prevent the more delicate kinds from getting smothered.

If Hollyhock seed are sown now in a rich bed of earth, and properly cared for during the coming fall, they will bloom next summer.

Hydrangea Paniculata Grandiflora.

This is justly esteemed one of the finest hardy flowering shrubs introduced into our gardens. The cut, for which we are indebted to *Vick's Magazine*, shows one of the single heads of



bloom, which are often a foot in length, pure white in color until they have been opened for some time, when they change to a pinkish hue. The shrub grows to be from eight to ten feet high, and when young is rather of drooping, or indeed straggling habit, the panicles often lying upon the ground. As it gets older it forms a bush, which is unequalled for the size of its flowers and their long duration. The plant needs a rich soil, and manure should be occasionally dug in about its roots. This *Hydrangea* is comparatively a new introduction, but all the nurserymen now have it, and we commend it to every one having a garden, as eminently deserving a place in even the smallest collection.

A Two-Acre Family Garden.

Messrs. Editors American Farmer:

I submit a plan for a division of 2 acres of land, its preparation, &c., to your many readers, as one which I think will support comfortably a large family of persons:

Lay off a plat two acres long and one wide, which is a convenient shape for plowing; in the late fall break deep and subsoil; then throw up into ridges 3 feet apart as high as possible. In the water furrows put 200 bus. cotton-seed and reverse your rows. Let it lie to the middle of January; level your land by cross-plowing and harrow in this mixture: 600 lbs. best Peruvian guano, 800 lbs. bone-meal, 6 bus. salt, 10 bus. soot, 20 bus. plaster; thoroughly incorporated, spread evenly and harrowed in.

Lay your rows off and plant: 1st, two rows asparagus, plowed or spaded deep, with a liberal allowance well-rotted stable manure drilled in and drop roots 2 years old one foot apart. Then, omitting the stable manure, four rows strawberries; then, in season or as to proper time, one row, divided half and half, radishes and lettuce; two rows English peas, one early and one late; one row squash and onions, half and half; one row snaps; six rows Irish potatoes; six rows sweet corn; fifteen rows sweet potatoes; one row gooseberries; four rows raspberries; one row celery, manured again and trenched; three rows field peas; six rows turnips. The onions, turnips and Irish potatoes might have in addition manures drilled in at time of planting—say cotton seed for Irish potatoes, hen manure for onions, and Turner's "Excelsior" for turnips; also, one row might be planted in cabbage, highly manured in drill; the balance divided between a few choice peaches, pears, cherries, apples and blue plums, the fruit to occupy the lower side of the plat.

This arrangement, though requiring money, time, labor and patience, I think would be a happy variety arrangement for a family garden, and would prove both remunerative and pleasant and the *two-acre* pride of the household properly prepared and cultivated, while as the rows run the full length of the plat, would save much labor over short beds, as the plow and cultivator could do the most of it.

Halifax Co., N. C. JNO. D. THORNE.

The Vegetable Garden.

August.—All spaces whence crops have been removed ought to be filled with turnips, spinach, &c., otherwise they are nurseries of weeds. Remains of early crops and other litter should be removed to the compost heap, or burned if full of weed-seeds. Beans and cucumbers for late use and for pickling may still be planted in good ground. Celery may still be transplanted. The early crops may be earthed up every ten days. If dry weather follows planting, a good watering should be given. Cabbages should be well worked and the earth drawn to them. So too of cauliflowers. Lettuce for a fall crop may be sown on rich, moist ground. Sow spinach in drills 16 to 20 inches apart; while turnips ought to be in by the 20th, and, if troubled by the fly, scatter plaster, air-slaked lime or ashes on the plants.

Maryland Granges.

BALTIMORE COUNTY GRANGE, No. 13, proposes to hold on September 5th, in a fine grove on the Northern Central Railway, a few miles north of Baltimore, its annual public meeting and basket pic-nic, and to combine with it other features which will add to the interest of the occasion, such as a show of farm, garden and dairy products, live stock, agricultural implements, &c. The officers elect of the grange will be installed into their several positions by the State Master according to the Ritual of the Order; a number of eloquent and distinguished speakers from our State and abroad will be invited to deliver addresses on the grange; there will be music in attendance, diversions for young and old, a fine dancing platform laid, and every pains taken to make the event an agreeable and interesting one to all attending. Invitations have been extended to the granges of the other counties to be present, and as most of the officers of the State Grange are expected, the meeting will assume somewhat the character, it is believed, of a general reunion of the Patrons from all parts of Maryland.

CHAPEL GRANGE, No. 65, dedicated, on the 4th ultimo, its new grange hall at Cordova, Talbot Co. The usual ceremonies appropriate to such occasions were performed by W. Master Jos. T. Moore, of the Maryland State Grange, and addresses delivered by Thos. F. Shepherd and Gen. Hardcastle, of the State Executive Committee; Dr. Atkins, Capt. Smith, Jno. W. Knotts and other visiting brothers. The musical part of the programme was very creditable, especially to the sisters, who are also entitled to praise for a handsome lunch served to the large company present. The following are the officers of the grange: Master, Dr. Chas. H. Rose; Overseer, James H. Ridgaway; Lecturer, R. W. L. Probasco; Steward, Levi T. Dukes; Asst. Steward, P. Addison Morgan; Treasurer, George H. Tarbutton; Chaplain, Wm. L. Arringdale; Gate Keeper, William H. Mahn; Ceres, Mrs. Julie E. Rose; Pomona, Miss Lizzie Hopkins; Flora, Mrs. Sarah Tarbutton; Lady Asst. Steward, Miss Clara A. Ridgaway.

MONTGOMERY COUNTY GRANGE, No. 7, held its regular quarterly meeting at Damascus, on the 25th instant, from 10 to 1 o'clock, with an out-door meeting that filled up the afternoon, both largely attended and decidedly interesting, some three or four of the ablest men in our county, including the W. State Master, taking an active part and making addresses which might fairly be termed effective. Dr. John W. Magruder gave, in my opinion, the most oratorical grange address I have ever heard. F.

GLENCOE GRANGE, No. 160, Baltimore Co., will hold a public meeting on the afternoon of Wednesday, 7th instant, in a grove on the York turnpike, near Glencoe Station, Northern Central Railroad. W. State Agent Devries, W. State Lecturer Robinson, W. Master Taylor and W. Master-elect of the Baltimore County Grange have been invited to be present and speak on the occasion. Visitors are expected from the neighboring granges, and an enjoyable time may be counted on.

Home Department.

Bearing One-another's Burdens.

Messrs. Editors:

You have my unbounded sympathy, inasmuch as your duties must needs require your presence in the midst of heated walls and pavements, with the din and dust of the ever-moving crowd constantly wafted in through the open windows; while we are luxuriating in comforts of pure air, quiet, shady lawns, &c. It is of pure sympathy this letter is born, for the temptation is very strong to take a book and fan instead of the pen, and spend a leisure hour or two under the trees,—others however might be likeminded and our kindly editors left minus matter for "our department." Surely in such days as these we all should strive to bear our portion of every burthen, in order that none may have an extra share. I wonder whether it is as generally understood as it should be, that *every shirk shirks his load to somebody else's shoulders*. I leave it to thoughtful minds of a different turn to demonstrate the truth of this in other departments, while I will confine my own efforts to the home circle.

I claim it to be a very rare exception where, if every member of a household performs faithfully his or her part, that any one member has more to do than can be comfortably performed, consistently with their station in life and pecuniary circumstances. When weary feet go plodding through the daily duties, when temper becomes roused, when natural elasticity of spirits and limbs are wanting, the hair turning grey, and the brow clouded and wrinkled, a close observer will seldom fail to find the cause in the fact that some other load besides the one belonging there has been laid upon those shoulders.

Those most interested are too easily satisfied that these are due to age; but age is responsible for a very small portion of them. It is within the memory of most of us that age was charged with the toothless condition of the majority of middle-aged people; whereas in these days, it seems that with proper care teeth may do us good service as long as we may chance to need them. This I believe to be true of every part of the human frame, and that "a green old age" is not merely a poetical idea.

The husband who strives to keep his wife up to the standard at which he took her will often than otherwise find her rising above it both mentally and physically. There is an inward responsiveness to that kind of care which seldom fails. The husband has no right to say that his wife is able to take care of herself, (however true it may be;) this is a duty he is supposed to have assumed voluntarily. The *over-burdened* wife and mother owes the circumstances oftener to the fact that she was thought capable of caring for herself than to any other cause. A husband who is wise and kind will let it be his first and constant care, that neither by force of circumstances nor of her own free will does more care or labor rest upon her than is consistent with good health and good temper. According to the *general fitness* of things, a woman's duties lie in doors and a man's outside, yet this is by no

means a fixed rule. If there is more than her *share* in doors, he ought to help her or provide help. If the man has more than his *share* outside, she should help or manage that he has help.

I have little patience with the woman who upon every plausible occasion thrusts her cares and duties upon her husband; nor have I aught of respect for husband, son or brother who sits *idly* looking on, while a woman is overdoing herself, because forsooth it is *woman's work*. In such a case it ceases to be her own load she is bearing—it is the idler's.

Ordinarily, and for obvious reasons, most of the carefulness for health's sake devolves upon the husband and father during the earlier years of wife and motherhood; having done his duty in this respect, in later years, with well-preserved wife and grown-up sons and daughters, he will find himself more than repaid by the tender care he will be sure to get from them; such a father becomes in his old age a sort of household idol. When, however, the mother arrives at middle age, (thanks to a kind providence and careful husband) in good health and free from cares peculiar to the raising of a family, a new set of duties fall to her lot, and unless these children take upon themselves each his or her share, mother will be defrauded of the rest and liberty to follow somewhat her own inclinations, which she has so long looked forward to, and the hope of which has helped her to bear the wearying and incessant demands of children's wants and infirmities. Alas! too often, owing to injudicious training, or the shortsightedness of selfish natures, each one goes their own way seeking chiefly their own pleasure and pastime,—the mother's burthens increased in proportion to the amount of amusement, entertainment and dress, the children require.

It will be well for sons and daughters in after years if they have no such delinquency to remember—having cheerfully assumed their own portion of home cares and duties ere they were compelled by failing health or possibly sacrifice of life on the part of their parents to do so. Thoughtless children who shirk their own part of the home burthens, thus compelling their parents to wear themselves out prematurely, deprive themselves of that which never can be replaced, or restored to them; a lesson they too often learn to their sorrow when it is too late. A house that "kings might covet" is where parents, keeping true and lasting fellowship with their children, share in due proportion all duties and care, make of pleasure and sorrows common property. Could we thus spare ourselves all *superfluous* wear and tear of mind and body—enjoying temperately legitimate pleasures and pastimes—we might indeed hope for "a green old age."

CERES.

Care of Children.

Putting Children to Bed.

Ten years ago an old friend told me that her babies had cried more over going to sleep at night, or taking their daily naps, than about all their other troubles put together. She said this after expressing surprise at the cheerful way in which my year-and-a-half-old boy went up stairs

for a nap, and the quickness with which I returned to the parlor. Possibly she followed too strictly advice often given in print to mothers, something like this: "Have a regular hour for the child's nap, or for its bed-time, and when that hour comes, put it in its little crib and leave it there to go to sleep without further attention." Bad advice, I think.

Being of a tender heart, my friend more likely rocked or soothed it to sleep herself, but the attempt to establish regularity may have been very trying to both mother and child. I came very near carrying this thing too far myself. Regular habits, for children of all growths, are an excellent thing in most respects, but their formation should be coaxed rather than forced, and many times "the play is not worth the candle."

I thought I must train my first baby to good and regular habits. It would be convenient for me, and wholesome for him, if he would go to bed for the night as early as six o'clock, and several times I labored with him two or three hours, in the vain endeavor to make a wide-awake baby go to sleep. A more experienced neighbor taught me better. She remarked, "Perhaps you never can teach that child to go to sleep alone in his crib. I would not try too hard."—"But," I said "Mrs. Brown's baby goes to sleep in that way, and always has done so."—"All babies are not alike," she said smilingly, "as I have good reason to know."—She went on to tell me some of her experience. She supposed that babies must be rocked to sleep, unless they went to sleep while nursing, until she happened once to lay her first child, six weeks old, upon the bed, just as she had put on its night-gown, being suddenly called away to wait upon a neighbor at the door. When she came back to the baby, to her astonishment and admiration, the little thing was fast asleep. Next night she put it in bed awake, and it fell asleep without resistance, and always thereafter did the same, never disturbed unless there was loud talking in the room. This was so charming, the mother thought she would have her next little daughter behave in the same way. But no amount of coaxing or perseverance could reconcile daughter number two being put to bed awake.

Danger in Trying Too Hard.

Night after night the poor baby screamed and sobbed itself to sleep, almost breaking the heart of its loving and conscientious mother; at the end of a week of such agony, being no more inclined to yield than at first. Then the mother concluded that she had mistaken the path of duty, and gave up the contest, fearing a lasting injury to the darling's health from such excessive excitement.

"Did she conquer you?" I asked. "I feared so at the time," replied the mother, "but there is not a more obedient child, or a better girl, in the world than my Daisy." I believed her. But, since then, our gentle, conscientious Daisy, in her early womanhood, has suffered from long and dangerous illness, followed by a period of distressing mental weakness and aberration, which was, I have no doubt, connected in the child's vital or nervous history with that week of protracted and severe mental excitement in

her babyhood. Other similar cases have come within my knowledge. We do not know how many of the brightest and best minds have suffered great injury from the conscientious endeavors of their loving mothers to train them up in the way they should go. I have heard of one baby who froze its hand one winter night, though it had previously screamed long and loud, because it was an inflexible rule of its parents not to go near it after it was once tucked up warm for the night in its crib. Mrs. Stowe tells of a baby that pulled the pillow over its face and smothered itself to death, when crying itself to sleep alone.

Going to Bed when Sleepy.

I have had little difficulty with the bed-time business. The little ones go to bed when they get sleepy; and as there is usually an early breakfast to which they like to get up, they are sleepy early in the evening. The bed feels good to a sleepy child, unless mere sleepiness has degenerated into crossness. If a child is half sick as well as sleepy, it probably wants its mother's arms. If little ones are taken arbitrarily away from their playthings or pleasures, because "it is bed-time," they learn to regard bed-time as a natural enemy. As a little one's bed-time draws near, the elder members of the family should be considerate, and not propose or introduce new amusements or pleasure, which it will be hard for the little ones to leave. If anything that would have interested the little one happens after it has gone to sleep, it ought not to be mentioned afterward in a way to make the child feel that it has lost something by going to bed early.

Last night, for a wonder, my youngest boy went to bed crying, because he wanted to sit up and see papa. He is seldom awake when his father comes from his work at about seven in the evening, and until quite lately he supposed that papa was only at home a little while in the morning. He was so sleepy he could not keep awake, and finally consented, with tears, to go to bed as usual—only usually he says after a yawn, putting his hands in mine, "I guess I had better go to bed now." I had only just kissed him and wiped his tears, when I went to the door and saw "papa" coming. I stood there until he came in, and whispered to him to kiss the little one if he was awake enough to notice him, but not to wake him more with play or talk. Behold, the child was already asleep, and then I cautioned all not to tell the baby boy that his papa came as soon as he had gone to bed lest he should insist still more upon sitting up another time. He has his reward for early retiring, as he is the only child always *sure* of eating a six o'clock breakfast with papa. However the others may lag behind, there he sits in his high chair and bib, holding animated discourse with one who is to his imagination the personification of all the virtues and graces desirable in man.—*Faith Rochester in American Agriculturist.*

A BRUISE.—Smear with a small lump of *fresh* butter immediately. If *fresh* butter is not at hand, use olive oil. In either case renew the application every few minutes for two or three hours.

Domestic Recipes.

A very refreshing drink for hot weather, particularly for men working in the sun, is made by taking one cup of sugar, or nice syrup, to one teaspoonful of good sharp ground ginger; mix and add water according to taste; and after all some nice pure vinegar. My men prefer it to anything else I can give them. When I want to make it a little nicer for indoor use, I use white sugar, and citric acid in place of the vinegar.

A nice way to prepare young chickens, and much less trouble than frying, is to open them only down the backs; spread them out in a dripping-pan, having first seasoned properly; place the pan in an oven about right for bread, and about every four minutes baste with butter and lard melted together. When done serve with cream gravy, with finely-chopped parsley in it.

CERES.

Varieties of Seed Wheat.

We would be obliged to such of our readers who may have it in their power to furnish such information in time for our September number, as would tend to illuminate the subject of the best variety of wheat to be sown the coming Fall. From various sources we have seen it stated that where the Hessian fly had left its mark, it was found to be on the white varieties, and that the Clawson had suffered more than any other. These reports came from Canada, New York and the South, whilst at the West such is not found to have been the case.

At a late meeting of the Elmira Club, of which President Hoffman of the State Agricultural Society is also the President, a discussion took place, of which we make an extract from the Homestead's report:

At the last meeting there was a notice of Fultz wheat sent by Mr. Strang, of Wayne Co., the surprising fact being reported, that a field of this variety had escaped attack by the fly, while an adjoining field of Clawson wheat sowed the same day had suffered much from its ravages. The straw was stiff and of good length, with no appearance of rust or other fault, while the heads were well filled with bright amber grain. It was shown, however, that the Fultz wheat may be damaged by the fly, for Col. Ploillet, who prizes the variety very highly, and raises it in extensive fields, reported the experience of last year, when on his farm both Fultz and Clawson had like conditions of growth, except that the Fultz was sown a few days earlier and was attacked by the fly, while the Clawson escaped. The facts elicited seem to prove that immunity from the fly can hardly be claimed by any variety of wheat. Mr. Lovell made the singular statement that his barley was infested by an insect that seemed identical with the Hessian fly, the mischief being wrought at the lower joint of the stalk commonly, although in some cases the lodgment is effected at the next above, as in rare instances may occur with wheat.

The American Farmer.

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One Page.....	30.00	45.00	75.00	130.00

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Transient Advertisements payable in advance—all
others quarterly.
Advertisements should reach us by the 27th of the
month, to secure insertion in the succeeding issue.

BALTIMORE, AUGUST 1, 1878.

Gen. Meem's Sale of Sheep.

We call the attention of our readers to the advertisement of the sale of Cotswolds and Southdown sheep to be held at Mt. Jackson, Virginia, on the 28th instant. The animals to be offered are all desirable in every way, and the sale will be peremptory. Gen. Meem writes us that if he is at all encouraged he will hereafter have yearly sales, as he believes this is the only way good stock can be scattered throughout a country. The result of the annual sales in Kentucky and the West demonstrate this, and we trust such success will attend this first trial of this plan in this quarter as to lead to its continuance. Such of our friends as are thinking of purchasing sheep should by all means be present. It will be seen that unusual facilities are offered by the railroad.

The Royal Agricultural Society's Show at Bristol, England.

We are in receipt of copious reports of this fine show, held 9th to 15th ultimo, and one of the most successful ever held by the society. The total entries were never so large, and the show of cattle was only excelled at Birmingham, where the entries numbered 465, whilst here they were 448. The agricultural implements and machinery are reported to "represent a town in themselves;" and the articles for use in the dairy

and for sending milk long distances by rail constitute a special feature of the show.

In the cattle, Short-horns were, of course, the most numerous, and next to them in point of numbers were the Channel breeds; Devons were good but not numerous; of Sussex and Long-horns there was not a great display, and Herefords showed a falling off.

The exhibition of sheep was pronounced one of the best ever held, and the show of pigs was large and very fine.

The attendance was very large, almost coming up to that of the meeting at Liverpool, the most successful provincial show the society ever held.

[3] We are indebted to Mr. Townend Glover, of the Department of Agriculture, for a copy of his work "Cotton, and the principal Insects frequenting the plant in the United States,"—containing 22 plates, all etched by his own hand, giving figures of all the insects injurious and beneficial to the cotton plant, with descriptions; the whole forming a volume unique in American Entomology, and of surpassing usefulness for reference.

A New Harrow.

Meassrs. U. G. Miller & Co., Ashland, Md., besides their usual variety of implements will offer this fall a newly-invented harrow, which after various alterations and experiments has reached a shape of great efficiency. A number of the Gunpowder Club have made suggestions which have been adopted in its manufacture, and they have tested its work. The implement will be exhibited at the public meeting and show of the Baltimore County Grange, on the 5th September.

Improved Stock.

A number of breeders advertise stock of the improved breeds in this issue. Mr. C. J. B. Mitchell has for sale Cotswolds; Mr. Sam'l J. Sharpless, a noted breeder, offers Southdowns; Dr. W. H. DeCourcy offers Shropshire Sheep and Hereford Cattle; Mr. W. U. Kennon also offers Shropshires and Devons, and Mr. Wm. H. Perot some Jersey bull calves.

The McGinnis Harrow, as will be seen by the letter in the advertising pages, is gaining favor in the West. Capt. McGinnis has issued a new edition of his Harrow Circular, which can no doubt be had upon application to the manufacturers and agents of the implement.

[3] Farmers and others in need of lumber of any description for building and other purposes are referred to the advertisement of the old established house of Thomas Matthews & Sons.

The Agricultural College.

The register or circular of this institution for the current year has been issued. It appears from it that during the last session the total attendance was only 71, the average being, we believe, about 50. Most of the pupils were from the cities of Baltimore and Washington, and few appear to have come from the agricultural districts.

Unusual space is given the agricultural department, and it seems that hereafter all the pupils are to be required to take this course. Nothing is said about the "special" classes, and it is presumable, in accordance with Governor Carroll's assurance, they are to be discontinued, although there is such a class being taught at the college during the vacation.

Col. Jones, the professor of agriculture, has resigned, but we have not learned of the appointment of his successor.

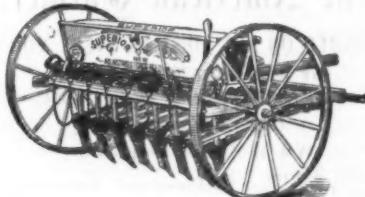
We understand that things at the college are not moving to the entire satisfaction of some of the powers that be, and we should not be surprised to learn, at a not distant day, of another of the periodical reorganizations of its administration.

—We acknowledge receipt from Messrs. L. Prang & Co. of parts 3, 4 and 5 of *Meehan's Native Flowers and Ferns of the U. S.*, each containing four beautiful plates and 16 pages of interesting text.

State and District Shows—1878.

American Institute, N. Y., Sept. 11–Nov. 23.
 California, Sacramento, Sept. 16–21.
 Colorado, Denver, Sept. 24–28.
 Connecticut, Hartford, Sept. 10–13.
 Dakota, —, Sept. 10–13.
 Georgia, Macon, Oct. 28–Nov. 2.
 Illinois, Freeport, Sept. 16–21.
 Indiana, Indianapolis, Sept. 30–Oct. 5.
 Iowa, Cedar Rapids, Sept. 16–20.
 Maine, Portland, Sept. 17–20.
 Michigan, Detroit, Sept. 16–20.
 Maryland, Baltimore, Sept. 24–27.
 Minnesota, Minneapolis, Sept. 2–7.
 Minnesota, St. Paul, Sept. 2–7.
 Missouri, Madison, Sept. 9–13.
 Nebraska, Lincoln, Sept. 23–27.
 Nevada, Reno, Oct. 7–12.
 New England, Worcester, Mass., Sept. 3–6.
 New Jersey, Waverley, Sept. 16–20.
 New York, Elmira, Sept. 9–13.
 Ohio, Columbus, Sept. 9–13.
 Oregon, Salem, Oct. 10–18.
 Pennsylvania, Erie, Sept. 23–27.
 St. Louis Association, St. Louis, Mo., Oct. 7–12.
 Texas, Austin, Oct. 29–Nov. 2.
 Vermont, St. Albans, Sept. 10–12.
 Virginia, Richmond, Oct. 29–Nov. 1.
 Wisconsin, Madison, Sept. 9–13.

The Superior Drill.



We referred to this drill last month, and we here give a cut of it, which by a mistake of the printer was replaced by another one in the advertisement of Mr. Durborow, the agent for its sale.

Will some of your contributors give me the best mode of ferrying a boat across a river without steam. Say by horse-power or other means to propel the boat safely and quickly. Would much oblige

Milton, N. C.

A SUBSCRIBER.

Can any of our readers advise our enquirer?

PEACHES.—The receipts at Baltimore July 31, this year, were 700 boxes, against from 10 to 15,000 same date 1877.

Sheep Management.

Col. Crutchfield, of Tennessee, thus gives his experience with sheep:

"I never breed in-and-in; never use anything but mature rams. It is false economy to breed to a lamb, because he can be bought for a few dollars less, and it is a positive injury to the lamb. I never allow the ewe lambs to be served by the ram until the fall previous to two years old. I permit the ram to run with the ewes from August to November, when he is taken from the ewes and lotted to himself; otherwise lambs would be coming at inopportune times. A ewe that loses her lamb in the spring is very apt to be served by the buck if he has access to her, within a short time after such loss, which would cause her to drop a lamb in the fall, making it difficult to carry her and the lamb through the winter, with loss of the lamb from her the succeeding spring. One mature ram to about fifty ewes, with a little grain twice a day, as his attention to the ewes prevents his grazing, and without extra feed, would cause him to decline in flesh and strength, and be less able to perform his duties. In summer they graze upon my meadows and grass lots, destroying noxious weeds, briars, &c., in winter upon the winter-grazing oats, and fed only when the oats are too wet to graze or the ground frozen; they are then removed to sod ground, and, if necessary, fed hay or grain."

SEED WHEAT—MUSCOVITE.

Actual yield, 65 bushels per acre. Send 25 cents for package, or (rate) \$4.00 a bushel. Address
 C. H. WALKER, Elkhart, Ind.

HAMPSTEAD, KING GEORGE Co., VA.,
July 3, 1878.

A. S. LEE, Esq., Richmond, Va.

DEAR SIR:—I am happy to inform you that your Agricultural Lime acted finely on my crop of wheat, and but for the rust which attacked it early, it would have been a very heavy one. I never had a finer growth when I used the best super-phosphate, and the clover has taken very well. I will take another car-load this fall.

The rust attacked the blades of the wheat throughout this section before it began to joint, and this has lessened the yield as well as the quality of the grain.

Yours respectfully,

R. H. STUART.

[Dr. Stuart, who writes the above, is one of the most extensive and respected farmers of his county.—*Eds. A. F.*]

L. J. WARREN, No. 18 E. Falls Avenue, is the agent in Baltimore for this manure. Price only \$15 per ton.

Baltimore Markets—July 31.

Flour.—Steady and firm in tone, with good local demand, and some inquiry for export; but offerings are limited. We quote as follows: Howard Street Super \$2@2; do. do. Extra \$3.25@4.25; do. do. Family \$4.50@5.25; Western Super \$2@2; do. Extra \$3.25@4.25; do. Family \$4.50@5.25; City Mills Super \$2.50@3.25; do. do. Extra \$3.25@4.25; do. do. Rio brands Extra \$3.75; Spring Wheat Flour \$4.50@5.75; do. Patent \$5.50@6; do. do. Extra \$6.25; Fancy brands \$6.50; Fine \$3; Rye Flour \$3 (\$3.25; Corn Meal, City Mills \$1.75@2.25; do. do. \$1.10@1.15; do. Western \$1.00 lbs. \$1.10@1.15.

Wheat.—Receipts are very liberal, the arrivals, however, being chiefly of Western, and for Southern, the offerings of which were light as compared with the last few days, the market was dull and weaker, particularly for Fultz, this description being neglected and lower, and generally buyers were disposed to discriminate more closely in making purchases. We quote as follows, viz.: Southern red, common, 50@75 cents; do. do. fair 80@85; do. Fultz 75 cents@81.00; do. longberry \$1@1.07; Western No. 2 red spot and August, \$1.01@1.04; do. September \$1.03@1.08; do. October \$1.01@1.04%.

Corn.—Southern steady, but quiet under very limited supply. Western steady, but dull. We quote: Southern white 53@64 cents; Western steamer, spot, 45 cents; do. mixed, spot and August delivery, 47% cents; do. do. September delivery 48% cents.

Oats.—Quiet but steady. Receipts very light. We quote: Western mixed 32@38 cents; do. bright 34 cents; Southern, fair to good, 31@33 cents; do. prime 35@36 cents; Pennsylvania 33@34 cents.

Rye.—We report to-day sales of 700 bus. good new Southern at 53 cents, and we write the market steady at this figure.

Cotton.—Strong for both spots and futures, with the latter 7 to 9 points up in price. We quote as follows for spots, viz.: Middling 11% cents; Low Middling 11% cents; Strict Good Ordinary 10%@11 cents; Good Ordinary 10% cents.

Hay and Straw.—Firm, with quotations as follows: Choice Cecil Co. Timothy \$15; fair to prime Md. and Pa. Timothy \$12@14; mixed Hay \$10@12; Western do. \$10@12; Clover do. \$8@9; Wheat Straw \$6; Oat do. \$8; Rye do. \$11@12.

Provisions.—Firm, with tendency upward. We quote: Bulk Shoulders, packed, 5% cents; do. L. C. Sides, packed, 6%@6% cents; do. C. R. Sides, packed, 6%@6% cents; Bacon Shoulders, packed, 6% cents; do. C. R. Sides, packed, 7 cents; do. Ham, sugar-cured 12@13% cents; do. Shoulders do. 7 cents; do. Breast 7% cents; Lard, Refined, tierces 8 cents; do. Crude, do. 7% cents; Mess Pork, P. brl. \$10.75. Butter—Western tubs, choice fresh, 12@14 cents; do. good to prime 10@11 cents; near-by Roll 11@13 cents. **Eggs**—N. Y. good to choice 7@9% cents; Western 6@8 cents. **Cheese**—N. Y. good to choice 7@9% cents; Western 6@8 cents.

Tobacco.—Maryland descriptions continue in good demand, with the offerings free of all grades, except the fine qualities, which continue scarce. We note sales within the past week or so of 1,000 to 1,300 hds., princi-

pally for France and Germany, though the French buyer has been doing comparatively little for the past few days. Of Ohio we note the sale of another lot of 500 hds., for France, and of some 500 to 600 hds., principally for Duisburg, and for both Maryland and Ohio prices are pretty steady. Stock here in factors' hands about 39,000 hds.

Product.—Prices are as follows for the articles named below, viz.: Apples, P. brl. \$1.25@2.50; Beams—N. Y. medium, P. bus. \$1.75@2.50; Peas black-eye, P. bus. \$1.30@1.40; Peas, Western green, P. bus. \$1.15@2.10; Potatoes, new, P. brl. \$1.25@1.75; do. Sweet, P. brl. \$4@6; Onions, P. brl. \$1; Beeswax, P. lb. 25@28 cents; Ginseng, P. lb., 70 cents; Seneca Root, P. lb., 55@60 cents; Virginia Snake, P. lb., 10@12 cents; Feathers, P. brl. 40@45 cents; Hides—dry country, P. lb., 13@15 cents; Sheep's Pelts, each, 50 cents@\$1.50; Tallow—country, P. lb., 6@7 cents; Soap—country, P. lb., 4@6 cents; Broom Corn, P. brl. 4@6 cents; Wool—unwashed, coarse, P. lb., 25@28 cents; do. fine, P. brl. 29@24 cents; do. tubewashed, coarse, P. lb., 32@36 cents; do. fine, P. brl. 32@35 cents; do. fleecewashed 35@36 cents.

Live Stock.—**Beef Cattle.**—Fairly active. We quote on sale 50@54 cents; generally rated first-class 4%@5% cents; medium or good fair quality 4%@4% cents; ordinary thin steers, oxen and cows, 3@3.5 cents. **Milk Cows.**—Slow of sale at \$3.25@4 a head. **Swine.**—In moderate demand, with quotations at 6@6% cents. **Sheep.**—Active, with good ones in demand. We quote butchers' Sheep at 8%@4% cents; Lambs 4%@5% cents; stock Sheep \$2@2 per head as to quality.

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J. J. Turner & Co..—Ammoniated Super-phosphate.
Jno. S. Reese & Co..—Soluble Pacific Guano, Bone-Dust, &c.
J. Q. A. Holloway.—Excelsior and Ammoniated Super-phosphate.
Eli M. Lamb.—Friends' Elementary and High School.
G. O. Brown.—Shepherd Pup for sale.

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Twelve Southdown Rams, one and two years old, (sired by imported Prince Arthur, bred by Lord Walsingham,) for sale in lots or singly. Also one imported Ram, two years old. Also Ewes and Ram and Ewe Lambs.

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Rams and Ewes from best English stock, for sale at moderate prices.

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A Scotch Collie Pup, (Dog) 8 months old—not trained. Price \$7. GEO. O. BROWN,
 AMERICAN FARMER AGENCY,
 BALTIMORE.



FOR SALE.
Shropshire Sheep.
HEREFORD CATTLE.

WM. HENRY DE COURCY.
 Queenstown, Md., July 25th.

LARGE PUBLIC SALE
 OF
Cotswold and Southdown
SHEEP,

IN SHENANDOAH CO., VA.

The undersigned will sell at public sale, without reserve, on WEDNESDAY, AUGUST 23, 1878, at Strathmoor, immediately upon the Valley Branch of the B. & O. R. R., his entire flock of pure-bred Cotswold Sheep, except his imported Breeding Bucks, comprising **170 Head of Bucks, Ewes and Lambs**. The Ewes were bred in England, Canada and Kentucky. The Lambs are out of these Ewes by English Bucks, bred by MR. RUSSELL SWANWICK, of the Royal Agricultural College Farm, England, and sent by him to the Centennial.

Will be added to the sale some 30 pure-bred Cotswold and some 30 pure-bred Southdown Bucks, which will be selected by the subscriber in person, from the best flocks in Kentucky. The stock is every way worthy of the attention of breeders of fine Sheep. Sale to commence promptly at 12 o'clock. Terms—all sums of \$50 and under, cash; over that amount 90 days credit for approved negotiable paper.

Trains will be run from Frederick City, Hagerstown and Martinsburg on the morning of the sale; stopping at intermediate stations, to arrive in time to examine Sheep before and to return that evening after the sale. Tickets at half-fare rates. Parties wishing to examine Sheep before the day of sale can come by regular trains the day before, and will find accommodations at my house, or the houses of my friends, and at the many hotels in New Market or Mt. Jackson, close by.

GILBERT S. MEEM,
 Mt. Jackson P. O., Shenandoah Co., Va.

Friends' Elementary & High School.

A PRIMARY SCHOOL, AN ACADEMY AND COLLEGiate INSTITUTE, FOR PUPILS OF BOTH SEXES, Lombard Street, near Eutaw, Baltimore, Md.

The fifteenth year of this Institution will begin Ninth Month (September) 4th, 1878.

Students are here offered ample facilities for qualifying themselves to enter upon a business or a professional career, or to prepare themselves for matriculation at College or University.

Homes, wherein particular attention will be given to students, who, coming from elsewhere, desire board in the city, will be secured by Principal at moderate rates, and pupils who come daily from the country will be provided for until near time for departure of trains.

Circulars containing full information may be obtained at book-stores or at school-rooms.

E. M. LAMB, Principal.

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 STAUNTON, VIRGINIA.

REV. R. H. PHILLIPS, Rector, assisted by a full corps of experienced officers. The 34th annual session will commence September 11th, 1878. Buildings spacious, with gas and hot and cold water. Heated by steam. Extensive grounds. Patronage from 19 States. School first-class. Terms reduced. Seven churches within 3 minutes' walk. For catalogue address the Rector.

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In Westmoreland Co., Va., Three Miles from Court-House,

Six miles from steamboat landing. Contains 650 acres; upwards 300 cleared: 40 acres good meadow land. A large quantity excellent Pine, Chestnut, Oak, Poplar, Cedar, &c. Steam Saw Mill on the place. Soil—best quality of forest land, easily cultivated; highly susceptible of improvement; grows clover and other grasses well. Water pure, excellent, and in all the fields abundant. Dwelling-house, 2 basement rooms and 4 above; other necessary buildings and 2 barns. Perfectly healthy. Chills and intermittents unknown. Churches, Schools, Stores, Shops, &c., all convenient. \$8 per acre. \$9,500 cash; balance in 1 and 2 years.

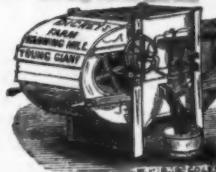
140 acres adjoining the above; 60 arable. Several acres meadow land. Soil good. Water good, very healthy, and might be made a nice little farm. 3 to 4 miles from navigable water. No improvements, except cabins. Price \$500 cash; or \$500—\$250 cash, balance in 12 months. Cord wood on the place would soon pay for it.

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No. 1, 24-Inch Sieves.....	\$27.00
No. 2, 22-Inch "	\$25.20
No. 3, 30-Inch "	\$31.50

Trade supplied at liberal discounts.

McGINNIS HARROW.

From Mr. J. D. Guthrie, of Shelby county, Ky., State Grange Purchasing Agent, and famous grower of Long-Wooled Sheep.

SHELBYVILLE, Ky., May 6th, 1878.

MESSRS. M'GINNIS, TAYLOR & HOLDERBY:

GENTLEMEN.—In reply to your request for my opinion, I take pleasure in saying the M'Ginnis Harrow has given universal satisfaction.

It pulverizes deeply, and its smoothing capacity is equal to any Harrow I have ever tried.

It stands unrivaled for destroying the toughest sods with its knife-like teeth, perfectly reducing the sod with two harrowings, presenting a thorough seed-bed for any kind of grain or seed.

Its draft is much lighter than the ordinary Harrow.

It is equal to the Thomas Harrow in lightness of draft, while it possesses decided advantages over the Thomas in DEEP PULVERIZATION, STRENGTH AND DURABILITY.

I have said thus much from observation of its working on the field.

While the Thomas Harrow is better adapted for the shallow covering necessary for very small seeds, for general purposes I think the M'Ginnis Patent is WITHOUT A RIVAL.

Yours truly, J. D. GUTHRIE.



Patented May 25th, 1878.

The Patent Self-Acting Cow Milker Mfg Co.

Every one who owns a cow should have one of our wonderful Milkers. A child can use them. Sent free to any part of the United States on receipt of \$2. Send for our Illustrated Pamphlet on the Cow, containing sectional views of a cow's teats and bag dissected and scientifically explained, by Drs. White and Wilson of this city. Sent free to any address.

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Liberal Inducements offered Farmers and others at the Mill, Jenkins Lane, North of Greenmount Cemetery.

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1858



1878

Forming the most concentrated, universal and durable FERTILIZER ever offered to the Farmer—combining all the stimulating qualities of Peruvian Guano and the ever-durable fertilizing properties of Bones, in fine dry powder, prepared expressly for drilling, and can be applied in any quantity, however small, per acre. It is the opinion of many close-calculating Farmers, after TWENTY YEARS experience in testing it side by side with other popular fertilizers, that an application of 100 pounds of "EXCELSIOR" is equal to 200 pounds of any other fertilizer or guano, and therefore fully 100 per cent. cheaper.

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Farmers can only be secure from inferior imitations by seeing that every BAG is branded as above, with the **Analysis** and **our name** in Red Letters.

Price \$50 per ton.

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Garden and Field Seeds, Fertilizers, Etc.

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FERTILIZING

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88 N. High St. and Cor. Canton Ave. and Albemarle St.

**WHITE PINE and YELLOW PINE LUMBER FOR BUILDING. ROUGH and
PREPARED LUMBER.****HARDWOOD FOR WHEELWRIGHTS and CABINET-MAKERS. SHINGLES,
LATHS, PALES, ETC., at LOWEST PRICES.**

au-ly

Dissolution of Copartnership.

BALTIMORE, March 19th, 1878.

The Copartnership heretofore existing between the undersigned, under the name of **J. J. TURNER & CO.**, is this day DISSOLVED, by mutual consent. Either will sign in liquidation.

J. J. TURNER,

J. Q. A. HOLLOWAY.

The undersigned, engaged since 1858 in the manufacture of **FERTILIZERS**, as a member of the firm of **J. J. & F. TURNER**, BY WHOM the formulas and processes of manufacture of**"EXCELSIOR" & "AMMONIATED PHOSPHATE"**Were originated, and since 1864 a member of the late firm of **J. J. TURNER & CO.**, relying upon his experience and personal reputation, hitherto acquired in the uniform excellence of these fertilizers, offers them IN HIS OWN NAME to the agricultural public.

Having secured the works of the old firm, 111 McElderry's Wharf, with the complete machinery, specially constructed for their uniform manipulation, he will continue



the manufacture of **EXCELSIOR** and **AMMONIATED PHOSPHATE** on his own account, with his office adjoining the works, where he will be pleased to see his friends and patrons, assuring them that the **FERTILIZERS** manufactured BY HIM shall be of the same uniform and high standard quality as sold by the *old firms* since their introduction.

JOHN Q. A. HOLLOWAY,
No. 107 McElderry's Wharf.

J. J. TURNER & CO.'S

AMMONIATED

BONE



SUPER

PHOSPHATE.

ANALYSIS.

Ammonia.	3.80
Soluble Phosphate of Lime,	23.91
Bone Phosphate of Lime,	3.15
Potash,	4.07

Composed of the most concentrated materials, it is

**Richer in Ammonia and Soluble Phosphates
THAN ANY OTHER FERTILIZER SOLD,**

And is made with the same care and supervision as our EXCELSIOR, its only competitor.—Uniform quality guaranteed. Fine and dry, in excellent order for drilling. Packed in bags.

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A Complete Wheat Fertilizer.

Ammoniated Phosphate & Dissolved Bone,

Prepared by

The Pacific Cuano Company,

EXPRESSLY FOR WHEAT.

This article is very rich in AMMONIA, SOLUBLE PHOSPHATE and POTASH.

WE ALSO OFFER

Dissolved Bone Phosphate,

Soluble Pacific Guano

And Pure Bone-Dust.

These Articles will Drill Readily.

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The Guano is perfectly dry, entirely free from lumps, and ready for the drill without any labor whatever. Purchasers will please see that the bags have Hobson, Hurtado & Co.'s name stamped on them, they being the only Agents of the Peruvian Government.

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At our PATAPSCO NURSERIES we have a large and select stock of **APPLE, PEAR, PEACH, CHERRY and PLUM TREES**, both standard and dwarf. **APRICOTS, NECTARINES, GRAPE VINES, BLACKBERRIES, RASPBERRIES, CURRENTS, GOOSEBERRIES, STRAWBERRIES, &c., &c.**, in great variety. Also a **LARGE AND CHOICE COLLECTION** of

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For **LAWN DECORATION** and **HEDGING PURPOSES**. Catalogues free. Trees can be safely shipped to any point. Address,

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Are prepared, with great care, from medical plants, are coated with sugar that they may be taken by the smallest child and upon the most delicate stomach; are intended especially to act upon the Liver—thereby relieving all such diseases as CONSTIPATION, HEADACHE, PARALYSIS, DYSPEPSIA, COLDS, JAUNDICE, and all diseases of a Bilious origin. No better evidence can be offered in favor of these Pills than the very fact that where their ingredients are known to family physicians, they are using them in their private practice. We append the following from one of our most prominent physicians:

DR. GILPIN.—After carefully examining the formula of your Sugar-Coated Pills, I feel it but justice to say, that the combination is certainly perfect, and comprises the only remedies I ever believed were the proper ones to be used in diseases of a bilious origin. I shall take pleasure in recommending them not only to my patients, but the entire medical profession.

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Yours,

F. M. CHALFANT.

We could fill several pages with certificates, &c., from prominent men throughout the country, but prefer to let the Pills in the future, as they have in the past, rest entirely on their own merit—knowing that wherever they are known their use will pass down from generation to generation.

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Grant White Solid Celery.	60 cts. per 100.	\$4.00 per 1,000
Dwarf " "	60 cts. per 100.	\$4.00 per 1,000
Purple-Top Turnip Seed.....	40 cts. per lb.	10 lbs. \$3.50
Purple-Top Ruta Baga.....	65 cts. per lb.	10 lbs. \$6.00

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51 Light St., Baltimore, Md.

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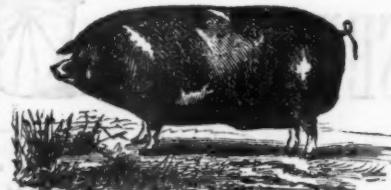
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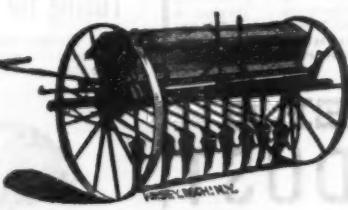
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We have pursued the C. O. D. plan for years; we have built up a good paying trade; it is popular with our customers. We know that by selling Goods on this plan we give our customers better bargains than on the old plan of credit. By giving better bargains we increase our trade.

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Gents' Buff Pegged Prince Alberts.....	1 75	Gents' Buff Stitched Boots, Extra Quality.....	3 75
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Gents' Lasting Gaiters.....	1 50	Gents' Extra Quality Water Proof Boots.....	3 75
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Gents' Fine Calf Sewed Congress Gaiters.....	2 25	Gents' Kip Boots.....	3 25
Gents' Calf Stitched Box Toe Gaiters.....	2 25	Gents' Extra Quality Kip Boots.....	4 00
Gents' French Hand Stitched Congress.....	3 75	Gents' Long Legged Kip Boots.....	3 75
Gents' Calf Congress Gaiters, Pegged.....	1 75	Gents' Long Legged Kip Boots, Extra Quality.....	4 00
Gents' Buff Pegged Boots.....	2 75	Russia Leather Water Proof Boots.....	3 50
Gents' Calf Pegged Boots, Extra Quality.....	3 50	Water Proof Hunting Boots.....	4 00
Gents' Calf Hand Sewed Boots.....	4 25	Gents' Split Leather Boots.....	2 50
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Ladies' Lasting Kid Foxed Gaiters.....	1 25	Ladies' Morocco Balmorals, high cut.....	1 50
Ladies' Lasting Brush Kid Foxed Gaiters.....	1 50	Ladies' Morocco Balmorals, high cut, Extra Qual.	1 75
Ladies' Lasting Kid Foxed, Extra Quality.....	2 00	Ladies' Morocco Balmorals, all styles.....	1 25
Ladies' Lasting Slippers.....	60	Ladies' Calf Pegged High Cut Balmorals.....	1 15
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Ladies' Kid Heeled Slippers.....	75	Ladies' Calf Sewed High Cut Balmorals.....	1 75
Ladies' Kid Croquet Slippers.....	1 15	Ladies' Calf Sewed Extra Quality Balmorals.....	2 00
Ladies' Kid Newport Ties, Extra Quality.....	1 50	Ladies' Goat Leather Balmorals, Heavy.....	1 25
Ladies' Lasting Button Boots, (plain).	1 50	Ladies' Buff Pegged Shoes.....	1 00
Ladies' Lasting Button Boots, Extra Fine.....	2 00	Ladies' Buff Pegged, Extra Quality.....	1 25
Ladies' Lasting Kid Foxed Button.....	1 50	Ladies' Heavy Split Balmorals.....	90
Ladies' Lasting Kid Foxed Button, Extra Fine.....	2 25		
Ladies' French Leather Button Boots.....	1 75		

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Misses' Lasting Balmorals, Plain.....	75@1 00	Misses' Kid Foxed Button.....	1 50@1 00
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Misses' Lasting Kid Foxed Balmorals.....	1 25@1 50	Misses' Calf Sewed Balmorals.....	1 25@1 50
Misses' Fine Morocco Balmorals.....	1 25@1 50	Ladies' and Misses' White Kid Boots, Slippers and Fancy Shoes of all Styles on hand.....	
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Boy's Calf Pegged and Sewed Balmorals.....	1 25@1 50	Boy's Kip Boots, Extra Quality.....	2 00@2 25
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Boy's Calf Pegged Congress.....	1 25@1 40		

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Containing 3 per cent. of Ammonia.

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Containing 40 to 44 per cent. Soluble Bone Phosphate.

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